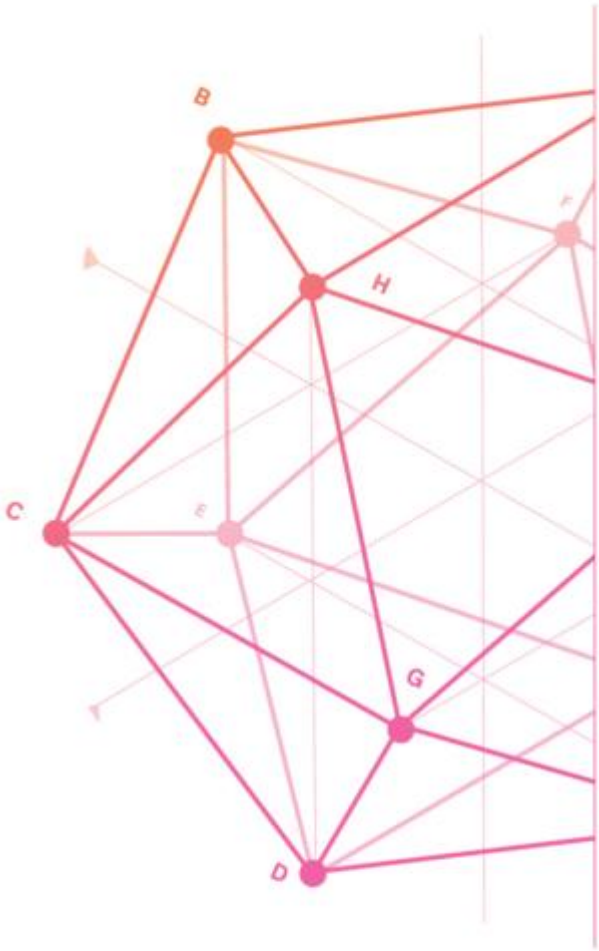



Magoosh

# Complete Guide to the SAT

# Table of Contents

# Introduction

Welcome to the Magoosh SAT eBook for educators! If you're not already prepping your students for the SAT, we hope this helps provide a starting point as you work with students. Or perhaps you're working with students, but need more material and a way to stay on track throughout the year. Whatever your situation, we hope to take what many see as a grueling pre-college ritual—prepping for the SAT—and turn it into an experience that is both fun and instructive. This eBook is meant to serve as a comprehensive overview of the SAT, combining crucial information on test structure and question types while providing essential strategies and tips for helping students have the best test day possible. If you want even more materials, such as video lessons and practice questions, you can check out the Magoosh SAT Course when you're done.

If you're reading this eBook as a PDF on a computer or tablet, you can click on specific sections in the Table of Contents if you want to skip around.

If you're already familiar with the exam and are looking for more study material, head over to the Resources section!

## The Magoosh Team

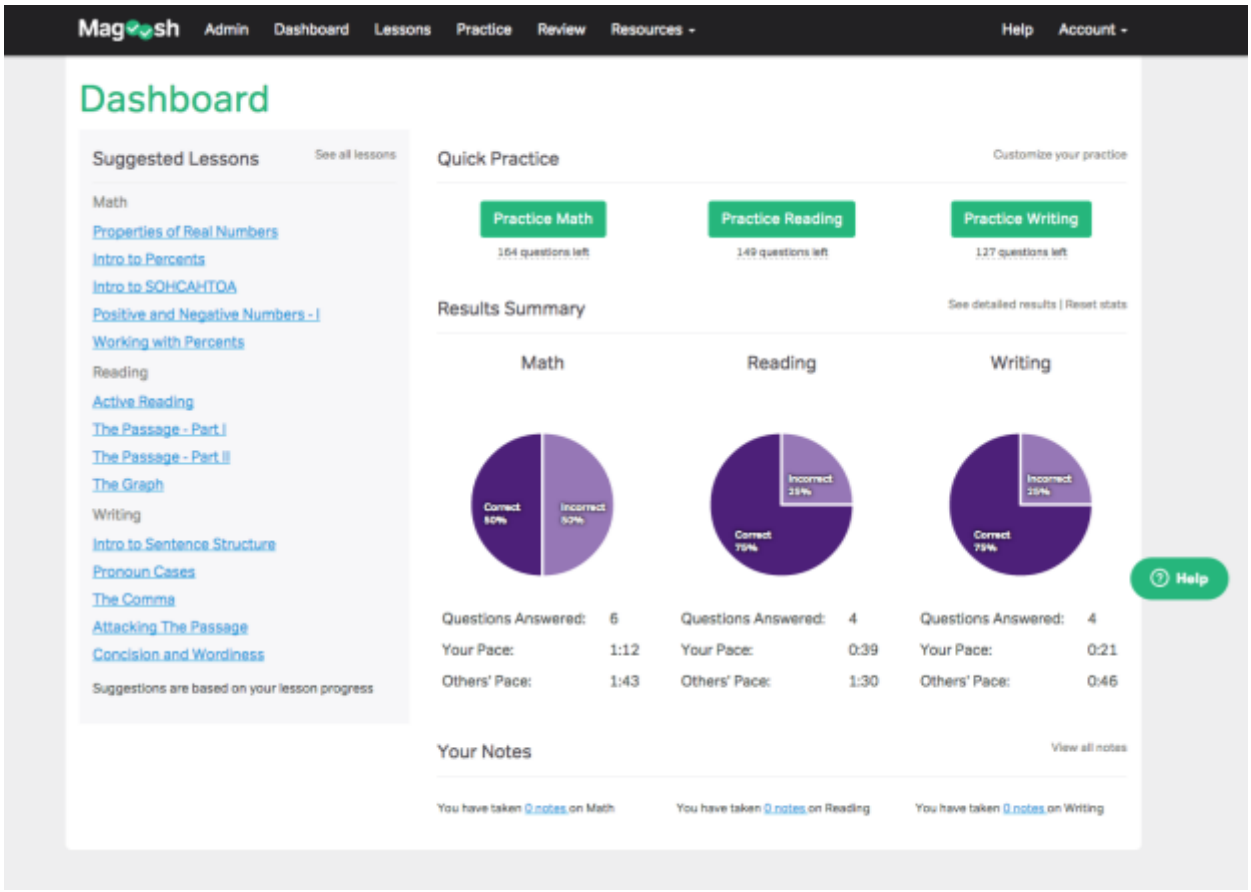
We're a team of passionate educators in Berkeley, California. We like word games, video games, and helping students do really well on standardized exams so that they can achieve their educational dreams! :)

You can learn more about us and what we do on our Team page. If you have any questions, feel free to contact us at help@magoosh.com!

## What is Magoosh?

Magoosh is an online SAT prep course that offers:

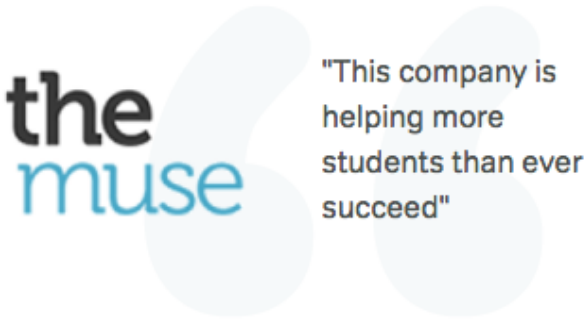
- 140+ unique lessons on all SAT subjects
- 400+ Reading, Math, and Writing practice questions, with video explanations after every question
- Material created by expert tutors, who have in-depth knowledge of the SAT
- Access anytime, anywhere from any internet-connected device
- Email support from experienced SAT tutors
- Customizable practice sessions and quizzes
- Full-length timed practice test
- Personalized statistics based on your performance



## Featured In

Mashable | The Wall Street Journal | FORTUNE | wiredacademic | The Telegraph
The Boston Globe | FAST COMPANY | San Francisco Chronicle | SAN FRANCISCO BUSINESS TIMES | Xconomy

## Why Our Students Love Us




*"I think Magoosh definitely helped me!!! I used it only for a couple of weeks in advance of the test and I really wish I had used it months in advance. All your video lessons are incredibly helpful and I love the amount of practice questions you provide.* ***Loved it so much and it helped my score by more than 100 points... and that was just studying the week before!****"*

*"Helped me review the fundamentals of math and writing that I have forgotten. Also provided me with useful tips to use on the test.* ***The dashboard really helped me understand my studying performances and habits.****"*

*"Magoosh placed me in a setting where I can be right in the comfort of my home watching clear and coherent instructional videos to learn about topics I wasn't sure about or saw that I was weak in from the diagnostic.* ***The staff also always sent out the most fruitful reminders and information in emails and I was able to increase my SAT score by 200 points in a matter of a month.****"*

## Meet the Authors

Here are the awesome instructors who wrote the content for this eBook:

**Chris Lele**

For the last 10 years, Chris has been helping students excel on the SAT, GRE and GMAT. In this time, he's coached five students to a perfect SAT score. Some of his GRE students have raised their scores by nearly 400 points. He has taken many GMAT students from the doldrums of the 600s to the coveted land of the 700+. Rumor has it he does a secret happy dance when his students get a perfect score.

**Kristin Fracchia**

Kristin is the ACT Expert who creates awesomely fun lessons and practice materials for students. With a PhD from UC Irvine and degrees in Education and English, she's been working in education since 2004 and has helped students prepare for standardized tests, as well as college/graduate school admissions, since 2007. She enjoys marathon running, backpacking, hot yoga, and esoteric knowledge.

**Mike McGarry**

Mike creates expert lessons and practice questions to guide GMAT (and other) students to success. He has a BS in Physics and an MA in Religion, both from Harvard, and over 20 years of teaching experience specializing in math, science, and standardized exams. Mike likes smashing foosballs into orbit, and despite having no obvious cranial deficiency, he insists on rooting for the NY Mets.

**Rita Kreig**

Rita helps high schoolers find Magoosh, improve their SAT/ACT scores, and get into their dream schools. She earned both her BA and Master of Pacific International Affairs from UC San Diego, where she also studied Spanish, French, and Portuguese. Rita loves education and community development, just as much as she loves vinyasa yoga and baking cookies.

**Lucas Fink**

Lucas is the teacher behind Magoosh TOEFL. He's been teaching TOEFL preparation and more general English since 2009, and the SAT since 2008. Between his time at Bard College and teaching abroad, he has studied Japanese, Czech, and Korean. None of them come in handy, nowadays.

**Maddi Lee**

Maddi started writing for Magoosh as a high school junior. She is an avid freelance writer and has been featured in multiple literary publications and anthologies. When she isn't writing, she loves traveling, doodling, and most of all, sleeping. Through her own experience and passion, she hopes to help guide fellow students through the roller coaster that is SAT and college admissions. Maddi currently attends Yale.

**Rachel Kapelke-Dale**

Rachel is a High School and Graduate Exams blogger at Magoosh. She has a Bachelor of Arts from Brown University, an MA from the Université de Paris VII, and a PhD from University College London. She has taught test preparation and consulted on admissions practices for over eight years. Currently, Rachel divides her time between the US and London.

## From the Author of this eBook

Hi, my name is Chris and I love test prep. Okay, I know that's an uber dorky thing to say. At the same time, being around these tests for many years has given me a sense of the way that the test writers ask questions—and create wrong answers!—and I look forward to imparting this knowledge to you and your students. My hope is that after you go through this eBook, though you might not necessarily love test prep, you will have a deeper understanding of the new SAT—and use that to help guide your students.

As you well know, becoming good at test prep is like any other skill: students have to practice. Taking standardized tests is not an inborn skill. Some students have much more practice than others, yet we persist in thinking, "Oh, they're just good at tests." So while many of the concepts in this book might be new to you (though I'm guessing quite a few will be familiar), just remember: the more your students learn and the more they practice SAT test questions, the more likely they will be to improve.

Of course, it's not that easy. You'll realize that some students are better at certain parts than others. Reading, for example, might be easier for those who enjoy reading in their spare time, whereas complicated graphs dealing with three different variables will make some students' heads spin. Remember, though, that most instructors have similar issues. What will help you get through the trouble spots are communicating to your students persistence and a positive attitude. Think of questions answered incorrectly as opportunities for learning.

To help you better understand the part(s) of the test students need to work on, I—along with my team of content experts—have broken the test up into writing, reading, and math. As you and your students work your way through this book, I highly recommend that you do actual SAT practice questions. Nothing helps students improve more than doing actual questions. Of course, these practice questions are based on fundamentals of and concepts in each subject area, and that's where this eBook comes in.

One way of using this book is by assigning students College Board practice questions, figuring out their areas of weakness, and then having them read up on those areas in this book. Alternatively, you can just read through the entire eBook before assigning questions, and then come back to specific parts of the eBook as needed.

Finally, if your students hit a plateau or a wall or whatever metaphor you want to employ for not improving, let them stop. And take a break. Our brains often learn even while we are not in front of a book. Taking a couple of days off from

parabolas will likely make it easier for students to understand them the second time around. So, from all of us here at Magoosh, good luck to you and your students on your SAT journey. And who knows, perhaps test prep will be more enjoyable than you thought.

## The SAT Changed! (In 2016)

When many high school freshman found out a couple of years back that the SAT was undergoing its most dramatic changes ever, they reacted in a totally predictable fashion: they freaked out.

After all, they would be guinea pigs not just for any test but for the test that, more than any other, would determine their futures. Since then, the writers of the test—The College Board—have released reams of new material and practice tests, so we should all calm down a bit and take a deep breath. Yet there is so much lingering dread about the test that many are opting to take the ACT, the once perceived underperforming sibling to the mighty SAT, but a test that has since gained more respectability amongst college admissions boards.

To make matters worse, at least as far as the new SAT was concerned, no scoring data had been released. So you could take any one of the four practice tests available—yet have no idea how you fared compared to other students—nor would you know what score on the old test your new SAT score corresponded to.

But we've learned a lot since then. And here you are, ready to benefit from everything we've learned about this test over the past few years!

This eBook will help you and your students along the test prep journey! And if you have any questions, we're real people (not robots) ready to help! You can contact us at help@magoosh.com.

# Meet the SAT

## Ch-Ch-Ch-Changes!

Like David Bowie, the SAT exam has taken on many different forms. The 2016 redesign was by far the largest change in the last 30 years. In March 2016, the College Board released a new SAT exam that aimed to better represent what students learn in high school and be a fairer indicator of future college performance.

You may be more familiar with the pre-2016 SAT, so let's focus on what you can expect from this redesigned, refurbished, and restructured exam!

## The Format of the Old SAT vs the New SAT

Let's start with a side-by-side comparison:

| Category | Old SAT (Pre-March 2016) | New SAT (March 2016 - Present) |
|---|---|---|
| **Exam Length** | 3 hours and 45 minutes | 3 hours (+ 50 minutes for the optional essay) |
| **Sections** | 1. Critical Reading<br>2. Writing<br>3. Math<br>4. Essay | 1. Evidence-Based Reading and Writing<br>a. Reading Test<br>b. Writing & Language Test<br>2. Math<br>a. No-calculator section<br>b. Calculator section<br>3. Essay (optional) |
| **Essay** | Required (25 minutes) | Optional (50 minutes) |
| **Score** | 600 - 2400 | 400 - 1600 |
| **Subscoring** | None | Subscores given for every section |
| **Guessing Penalty** | -¼ point for every wrong answer | None |

Please note that there is no longer a penalty for getting an answer wrong. Students new to the SAT might wonder if this is a big deal. Let me tell you…it is.

Okay, one more chart before we move on. Let's look at what students can expect in each section of the new SAT exam:

| Section | What to Expect |
|---|---|
| **Reading** | ● 65 minutes<br>● 52 multiple-choice questions<br>● Read passages from literature, historical documents, social sciences, and natural sciences. Answer questions about information and ideas in the text, the author's use of language, and how passages relate. |
| **Writing & Language** | ● 35 minutes<br>● 4 passages, 44 multiple-choice questions<br>● Read passages and answer questions relating to grammar, vocabulary in context, and editing. The four passages relate to: careers, social studies, humanities, and science. |
| **Math** | ● 80 minutes<br>○ No-calculator section: 25 minutes<br>○ Calculator section: 55 minutes<br>● 58 multiple-choice questions<br>○ No-calculator section: 20 questions<br>○ Calculator section: 38 questions<br>● 1 set of "extended-thinking" grid-in questions<br>● Answer questions relating to:<br>○ Heart of Algebra: Algebra I, including linear equations and inequalities<br>○ Problem Solving & Data Analysis: Interpreting data, analyzing relationships<br>○ Passport to Advanced Math: Algebra II (including quadratic and high-order equations<br>○ Additional Topics in Math: geometry, trigonometry, complex numbers |

| | |
|---|---|
| **Essay (Optional)** | • 50 minutes<br>• 1 essay<br>• Read the passage, analyze the author's argument, and demonstrate your ability to write an effective essay. The prompt barely changes from test to test, but the passage is different each time. |

Alright, that about covers the basics. Let's move on to some general tips and test-taking strategies.

# General SAT Tips & Strategies

## How Long Should Students Study for the SAT?

Some would say a weekend; some would say a lifetime. Clearly, the truth is somewhere in between, and the answer really depends on your students. Are they busy, but have lofty goals? Then studying for an entire summer is probably necessary (and maybe more, depending on how a first test goes). If they aren't looking to rock the Ivy League, but hoping for a decent in-state school, then perhaps a month is all they'll need.

But no matter what your students' goals may be, **a weekend practicing won't be sufficient**. While a month can make a big score difference (depending on the materials being used), a weekend isn't going to make much of a difference.

On the flip side, students are usually quite busy, and attending SAT classes every weekend, year after year isn't reasonable (colleges do want well-rounded students who are interested in more than just test-taking). Of course, most students do not fall into this category, but it's worth keeping this advice in mind.

Ultimately, how long a student studies for the SAT has a lot to do with their current score and the average scores of admitted students at the school they hope to go to. Figure that out first, and then you'll have a better sense of just how much time your students will need.

### The 70-150 Point Increase = One Month

For students who don't need to move their score by leaps and bounds, this should be enough time. As long as they can give SAT prep a month of studying, they can—with hard work and a your help—expect to improve about 30 to 70 points in both Math and Reading/Writing, or up to around 150 points overall.

### The 150-250 Point Increase = One Summer

With the right materials and a good teacher, a summer is ample time for students to raise their scores by as much as 250 points (assuming they are not starting off with a score of over 1350—those last few points are always the hardest). They will need to take practice tests every week and go through them with a really good teacher/tutor (you!). This should also help you determine a student's weak points.

### The 250-350 Point Increase Club

First off, I'm here to tell you that such a score increase is possible. Secondly, the higher the baseline score (the score a student starts out at), the less likely it is to see such an increase. (But of course, if they are already scoring 1400, then it is impossible to increase by 300 points.)

But for students scoring in the 900-1200 range, a 300-point increase is possible, given lots of hard work and, of course, time. They will need to become an avid readers, math machines, and sticklers for grammar (or at least think like that). But these are all learnable skills, with the right guidance and materials. These students will probably need more than a summer; in fact, they might find needing to study over back-to-back summers. But that's okay, for students between their sophomore and junior years. With determination, it can be done!

### The 1350+ Plan

Let's say a student is already starting at the 1350- or 1400-level. Increasing 100 or more points is going to be tough. But he/she is probably already a strong student. It might only require about six weeks to get the score up, but that will have to be an intense six weeks (i.e., dreaming in fourth-degree polynomials and Reading passage quotes). Going through multiple practice tests a week with an SAT tutor may be necessary. With an entire summer, and the right instruction, these students should be able to break the 1500-point threshold.

## How to Make SAT Prep Stick

When studying anything, SAT topics included, there's the constant, underlying danger that students may forget what they've learned. You've likely seen this before - a student gets a perfect score on a mid chapter quiz, but does poorly on a midterm that tests the very same concepts.

So while you're helping prep students for the SAT, how can you make sure that the things they learn don't just…slip away?

### Encourage Students to Pair Up

Unlike other tests, students don't have to choose just the people in their classes to study for the SAT with. Since most kids are going to take it anyway, they can pick and choose just about anybody in the same grade to practice with. Studying with a friend can really make the whole experience a lot more enjoyable, which is important for avoiding SAT prep apathy.

But the most important thing about working with somebody else is that students will actually engage with the questions. Instead of just answering the question and moving on, encourage them to explain their thought processes to a friend so they can understand the *why* behind an answer. It may help to model following a friend's reasoning when answering questions, and show how to ask for clarification when necessary. This approach is a great way to help students learn from one another, and understand where student learnings may be breaking down.

### Really Pick Apart Practice SAT Questions

With every practice question, your goal should be to know exactly how that question was created and help guide your students through that same thought process. Instructors who strive to have the depth of understanding required to write the test themselves can more effectively help students understand not only the content of the SAT, but the common traps that it may lay for them.

As you know, students do best when they linger over questions, even when they get them correct. After all, it's not about the answer; it's about the process. You want to be sure that students have a complete understanding /why they arrived at the answer and how it could have gone wrong. It's almost certain that they are going to see a question that tests a similar logical process on the actual SAT, whether it's in reading, math, or writing, so make sure that they take a good hard look

at it. A great exercise to try with your students is to have them try to write a similar question using slightly different details.

### Locate Weak Areas and Focus on Them

A student who has gotten, say, a few math function questions wrong, will need to spend a whole lot of time just practicing that one type of question. In order to do this, they will need the right materials. Unfortunately, the Official SAT Study Guide doesn't cut it here, since it doesn't have entire sections devoted to specific types of questions (like math functions) to focus on. Magoosh's online SAT prep offerings are better suited for this.

Even without a lot of questions to practice with, students can still improve core skills. How? Simply by practicing the questions they got wrong. As an instructor, it may be difficult to motivate students to work on the same questions over and over again. But as mentioned above, they need to practice how to arrive at the correct answer. By repeating the same question(s) from week to week, students will become more comfortable and figure out a strategy for answering them. And that strategy may prove pretty helpful on the SAT.

### Don't Trade Speed for Accuracy

One of the major differences students may encounter with the SAT test vs. class tests is the time restraint. With the time pressure on the SAT, it can be tempting for students to work though as many problems as quickly as possible. You'll likely need to remind them a few times to slow down and focus on what they are working on. There's a way to improve SAT-content retention (highly related to accuracy!) while *also* getting faster.

If time pressure is really stressing out your students, try out this pacing drill. I've seen it work time and time again…so let's go!

For this drill to work, you'll need to provide students with at least one, but preferably two or more, practice or diagnostic SAT tests. Why? Because **they need to know what types of questions are slowing them down.**

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Instructions for students:

The first thing to do is to skim each exam and get a brief overview of where you were rushing or where you didn't have enough time to finish the test. Take note of these.

Now, go back to the actual tests themselves. If you have your scratch work, all the better! Circle any problems that you *know* you spent more than two minutes on. (Note to teacher: We'll get into specific timing in different sections in just a minute.) Look at the problems and, if available, the answers and explanations. Classify each type of problem: first, by its general area and second, by its subject matter (for example, verbs, triangles, evidence, vocab in context).

Triage the subjects. In other words, decide what you're going to work on first. Eventually, you'll work on all subject areas that are giving you trouble, but start with the biggest score suckers. Once you know the order of the subject areas you're going to work on, here's what you'll need: multiple 10-problem sets of SAT problems in the area you want to work on, a timer, and a pencil. Make sure you haven't worked on these specific SAT problems before; that'll defeat the purpose.

**SAT Strategy: The Pacing Process**

Now you're ready to go! Here's what to do:

1. Take the first set of 10 problems. Work through them at a comfortable pace. Time yourself, but don't stop yourself when the ideal time for that practice set is up. Instead, keep going, not looking at the clock until you've finished all 10 problems.

2. When you've finished the problems, mark your answers. If you're getting less than six of 10 correct, review the subject matter in books or lessons before working on your speed. However, if you answered more than six out of 10 correctly, mark your accuracy score as a percentage, and the time it took you to finish the 10 questions at the top of the page.

3. During your next practice section, take 10-20 seconds off of the time it took you to answer the last set of 10 problems. For example, if it took you 20 minutes to answer 10 questions with 70% accuracy last time, give yourself 19:40 this time.

4. After completing this second set, mark your work and compare your accuracy score to the first set. If you've gotten less accurate, keep working through problem sets at this pace until you consistently achieve the same accuracy score as you did on the first set.

5. Once you match that first accuracy score, take another 10-20 seconds from your overall time and repeat with new problem sets.

6. Repeat the above process until you reach the ideal timing for questions in that subject area.

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That's it! This SAT strategy is simple but effective—just how we like it. Now: just what is the ideal timing for questions on different SAT sections?

**Timing in Different SAT Subject Areas**

Here's a quick breakdown of questions and timing on the SAT sections:

| Category | Questions and Time Limits | Seconds Per Question |
|---|---|---|
| **Reading** | 52 questions in 65 minutes | 75 seconds per question |
| **Writing and Language** | 44 questions in 35 minutes | 48 seconds per question |
| **Math (no calculator)** | 20 questions in 25 minutes | 75 seconds per question |
| **Math (with calculator)** | 38 questions in 55 minutes | 77 seconds per question |

## How to Take a Practice SAT (The Right Way)

The College Board, the creators of the SAT, releases a book of 10 practice tests. Many students wisely use this book, as it contains actual questions from the SAT. As somebody who teaches the SAT, I'll let you know that the book is basically the SAT bible and offers the best practice out there.

That being said, simply having students go through each test will not translate to a better score. But practicing full-length SAT tests is invaluable to a study routine. Students will get the most out of practice tests by keeping the following four points in mind.

### Build a Foundation First

Students who have little experience taking the SAT should not just dive into the College Board book. Help them first learn effective tips and strategies from tried and true resources like Magoosh, Princeton Review, and Barron's.

### Time Them

Once a student is ready to take a practice test from the College Board book, make sure that you set appropriate time restraints. You want to make this as close to the real test as possible. So set your timer (we actually have a great free app for this!), and don't give students any more time than the time allowed for each section.

### Don't Get Interrupted

Now that you've got the timer going, don't stop it. Also, do not take a break in between sections. Simulate the actual SAT by keeping students sitting for the entire three hours. Have them turn off their phones and rely entirely on your timer.

### Figure Out Your Wrong Answers

After assigning a test, don't just mark questions right and wrong. Grade the tests with students, talking through any that student may have missed. This process will help students better understand how the test writers think and avoid similar mistakes in the future.

If students want to review incorrect answers on their own, there's good news! We've recorded explanations on the Magoosh YouTube channel for the SAT.

### Require Error Logs

What's an error log? It's a list of all the problems answered incorrectly, what the correct answer is, and an explanation of to get there in the future. (This is one reason that good explanations on practice tests are so essential!) Make sure students are dating entries, or they may get confused later when trying to measure progress.

Once they've finished noting the problems they missed and the solutions, have them do some analysis in the margins. What question types did they miss more than others? Where did they get their best score? Their worst score?

If this isn't a student's first practice test, have them look back over their error log, or add previous exams to the error log and then review it. On which question types were they hoping to improve? Did they reach their goals? If not, what kinds of mistakes are they making: content mistakes, math errors, even errors bubbling in the correct answer? They need to take note of these, as well.

After reviewing wrong answers, go ahead and have them review correct answers. (This is where a lot of people balk, but trust me on this one!) They needn't make a log of these, but should go through and evaluate *how* they got the right answer. Guessing? By accident? Or was it a recently mastered concept put to work?

All of this analysis is super important, so they can make a game plan for next time and continue to improve those scores.

# SAT Writing Test

# Intro to SAT Writing

## What You Need to Know

SAT Writing...

- has four, 350-450-word passages, containing 11 questions each
- tests basic grammar
- tests more big-picture grammatical issues, i.e., transitions between sentences and transitions between paragraphs
- tests style, tone, and syntax
- contains one passage that will have a graph with one question

## Basic Tips for SAT Writing

Over the years, I've had several students who would always surprise me when it came to grammar. While they were masters at gaming the grammar section of the old SAT, they failed to spot even simple grammatical errors in their own essays. But this wasn't just about struggling to find a subject-verb agreement issue in their own writings. They seemed to miss the larger connections—those between sentences in a paragraph and those between the paragraphs themselves.

I'm guessing that the College Board recognized the same shortcomings in their approach (okay, let's be honest, the ACT recognized the shortcomings in such an approach and the College Board snapped to attention). So instead of testing isolated snippets of grammar—grammar that becomes very predictable if you know what to look for, and thus doesn't really determine grammar knowledge—the new SAT asks students to make corrections to a full-length essay.

This change is highly welcome (at least to educators who want the test to actually measure what it purports to). However, it makes the test less easy to game. You'll actually have to teach students to be decent writers—those who can tell an okay transition sentence from a felicitous one—to do well. But even if it doesn't come naturally to them, that doesn't mean there aren't some basic techniques to help them become better at this section.

### 1. To read or not to read

400 words are a lot to read. Multiply that by four and this section suddenly has 1,600 words—and that's not including the 44 questions. So should students read the entire essay?

I don't think there is an easy answer. My recommendation is to experiment. First off, time students: assign one passage followed by the 11 questions. See how many they get correct and gauge how comfortable they felt with the material as they went through it. Next, try the same without reading the passage at all.

My hunch is that the more successful approach might be determined by the specific passage. That is, some passages have more paragraph-centric questions. Students might only need to read that paragraph to get the question right, and not have to worry about reading the entire passage from the get-go. Conversely, some passages might ask students to analyze the relation between paragraphs or transitions between paragraphs. Without initially reading the entire passage, they may be scrambling around, trying to figure out what to read. Or they might totally overlook the supporting context and think they got the question right, but flubbed it completely.

**Best Strategy**

- Read a paragraph at a time
- Re-read parts of that paragraph if necessary

I believe the best possible approach is to read one paragraph at a time and then do the questions relating to that paragraph. Instructing students to do so will allow them to quickly go back and correct the grammar issues just encountered.

They'll also be able to more easily identify any conjunction issues that come between sentences without having to read the entire paragraph (though they will have to reread the specific sentences relating to that question).

Finally, students will be able to better notice the transitions between paragraphs, in case a question asks about that.

**2. Teach the rules (aka "Standard English Conventions")**

Ultimately, this is a test of grammar. So students still have to know the basic rules. What seems fairer about this test than previous versions is that if a student has a pretty strong grasp of a grammatical rule, he/she will most likely get the question right. Sure, there might be a tricky question or two, in which they'll have to read the previous sentence to figure out the correct answer, but it won't be anything like the old SAT.

**3. Know the question types**

The new writing section isn't all about grammar. It's important that students understand how ideas are developed over the course of a paragraph (and sometimes an entire essay). The test will ask them whether it should add information, delete a sentence, or move a sentence to a different part of a paragraph.

The first time students see such a question, they might be flustered. By practicing these questions and learning what the test is expecting, they will have an easier time with this same question type in the future. And remind students that this is a standardized test, so the wrong answers—and the reasons they are wrong—are consistent over tests. Once they pick up on these patterns, they'll become better at the question type.

**4. Importance of context**

It can be tempting for students to approach the new writing section by looking directly at the underlined part and the few words around it, and then coming to a conclusion. This might work *sometimes*, for example, if the question has to do with possessives or a straightforward subject-verb agreement question. But when dealing with sentence structure or transitions between sentences, instruct students to read the entire sentence *before* the underlined part *and* the entire sentence in which the underlined part is contained.

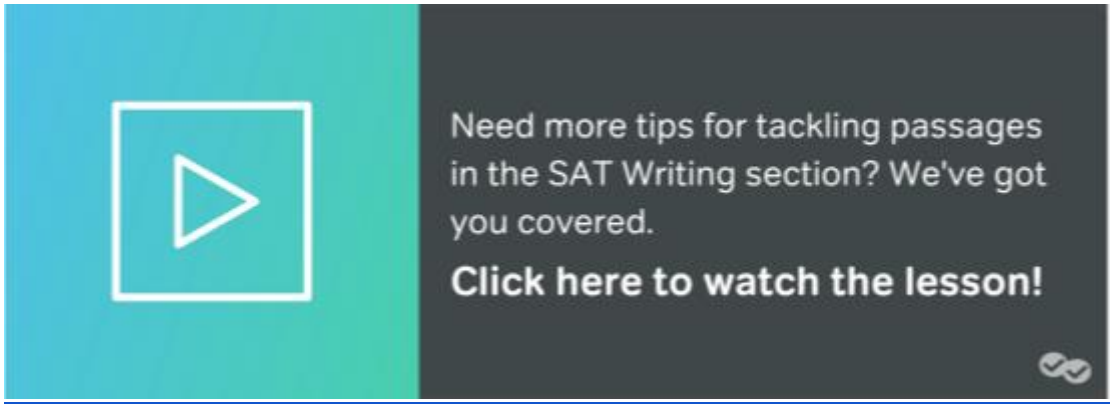
Sometimes, students will have to choose an answer choice that asks them to consider information from the previous paragraph. (We'll see such an example in our upcoming practice passage.) Often, when this happens, the test writers will reinforce the importance of context.

Compare these two questions:

1. *"Which choice most effectively combines the underlined sentences?"*
2. *"In context, which choice best combines the underlined sentences?"*

The first prompt focuses on grammatical issues within the two sentences that you have to combine (basically, you don't need to know the sentences that came before). The second prompt, however, clearly states "in context." So make sure your students understand the sentences—and sometimes even the paragraph—that come before the combined sentences the question is asking about.

Lastly, the tips that follow can either be shared with students directly, or used to refresh your own knowledge of the various subjects! With that in mind, they are written to address the person prepping for the test!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## Standard English Conventions

Students who know these basic strategies and are familiar with the question format will be in a good position—up until a point. They will still need to know "standard English conventions." This formidable-sounding phrase basically means grammar. The good news? There's no need to open up one of those massive grammar tomes students have been dreading since the 6th grade.

Below are the common grammar issues students will see on the test. Review and understand them. And then—and here's the important part—have them practice by applying what they've learned to an actual passage.

I should also note that the headings of the sections below—"Sentence Structure," "Conventions of Usage," "Conventions of Punctuation"—allow me to organize all the different concepts. You don't, however, have to know that "parallelism" falls under "Sentence Structure" and that "agreement" falls under "Conventions of Usage." You simply have to understand the concept of "parallelism" and when it is being violated, and the same for "agreement."

## Sentence Structure

What I'm going to do here is show you a basic example (so you get the concept) and then a much more advanced, SAT-level example. My logic is as follows: many students understand the concept at its most basic level (which usually means basic "See Jane run"-level sentences), but these same students fail to spot the error when the sentence is more advanced.

Additionally, I'm going to structure the layout of the grammar exactly the way that the College Board does.

**1. Sentence Boundaries**
**2. Subordination and Coordination**
**3. Parallel Structure**
**4. Modifier Placement**
**5. Inappropriate Shifts in Verb Tense, Mood, and Voice**
**6. Inappropriate Shifts in Pronoun Person and Number**

But unlike the College Board, I'm actually going to delve into—I'm talking deep dive—what each concept means in an SAT context. The below sections can either be used directly by your students to help them study, or you can use them to brush up on your own familiarity with these common SAT concepts!

### 1. Sentence Boundaries

**Fragments**

Sentences are made up of both a subject and a verb that tells us what the subject is doing. The exception is commands, which aren't tested on the SAT (for example, "Study!").

Fragments are incorrect because they lack a verb that describes what a subject is doing. But it's not that straightforward, as the examples below show.

✖ *Many students with a test on Monday.*

➜ *Many students with a test on Monday* ***are preparing*** *over the weekend.*

✖ *With proper training, many athletes.*

➞ *With proper training, many athletes* ***should be able to avoid*** *injury.*

(The bolded parts are the verbs in each sentence.)

**SAT-Level Example**

*Daily vitamins and minerals that are important in healthy cellular functioning.*

In this case, "that" begins a relative clause, which functions as a large adjective describing the subject. The verb that is part of this clause (in this case "are") should not be considered the verb that pairs with the subject to create a complete sentence.

➞ *Daily vitamins and minerals that are important in healthy cellular functioning* ***are*** *in many of the foods we eat.*

**Comma Splices**

There are several ways to connect complete sentences. The most obvious is by using a period. You can also use a semicolon, or a comma AND a conjunction. The "and" is important; that's why I put it in caps. If you have a sentence made up of two independent clauses and a comma without a conjunction connecting those sentences, you have a comma splice. (I have bolded the part that shows the comma splice).

✖ *Studying every day is not how I want to spend my* ***summer, I*** *want to make lasting memories with friends.*

➞ *(using a comma* and *a conjunction): Studying every day is not how I want to spend my* ***summer, because*** *I want to make lasting memories with friends.*

➞ *(using a semicolon): Studying every day is not how I want to spend my* ***summer; I*** *want to make lasting memories with friends.*

**SAT-Level Example**

✖ *Jupiter is the largest planet in the solar system, it also has the largest moon.*

➜ *Jupiter is the largest planet in the solar system, and it also has the largest moon.*

➜ *Jupiter is the largest planet in the solar system; it also has the largest moon.*

## 2. Subordination and Coordination

There are two ways of approaching this issue, one of which is much more important for the SAT. The first way is to explore the difference between "subordination" and "coordination." After all, that is the title that the College Board has given to this grammatical idea. However, getting tangled up in the nuances of the difference between subordination and coordination deflects from the purpose of the test: to determine whether you can tell the difference among transitions between clauses that suggest **contrast** ("however," "nonetheless," "on the other hand"), **similarity** ("additionally," "furthermore," "moreover") or **cause and effect** ("because," "therefore," "thus").

**Contrast**

*He practices tennis every day, **though** he is still unable to hit a solid backhand.*

***Even though** many students apply to out-of-state schools, they end up choosing a local college.*

**"Contrast words"**: however, (even) though, although, nonetheless, notwithstanding, despite

**Similarity**

*Climate change is causing many heat-related deaths. **Moreover**, it is leading to conditions that, in the long run, will harm us all.*

*Students feel overwhelmed with the number of hoops they have to jump through to get to college. **Likewise**, they feel flustered, once they get to college, by the many demands of their new environment.*

"**Similarity words"**: likewise, moreover, additionally, furthermore, also

**Cause and Effect**

> ***Because*** *of tuition hikes at the private school, many parents are opting to send their children elsewhere.*
>
> *The level of competition in college sports has become fiercer than ever.* ***Therefore,*** *athletes and coaches are seeking ever more sophisticated training regimens.*

**"Cause and effect words"**: therefore, thus, because, so, since

**Mini-Quiz**

*1. The SAT has historically been the test the majority of high school students take to enter college; additionally, with more students opting to take the ACT, the SAT has been forced to alter its content.*

*A) NO CHANGE*
*B) however*
*C) therefore*
*D) furthermore*

*2. The mean temperature of oceans has been rising significantly for the last 10 years; however, many organisms have been forced to move from their traditional habitats or to simply perish.*

*A) NO CHANGE*
*B) moreover*
*C) therefore*
*D) nonetheless*

**Answers and Explanations**

1. B

A contrast exists between what has historically been the case ("The SAT has been the most popular exam for college-bound students") and what is now the case ("The ACT is becoming increasingly popular"). This points to the contrast word, *B) however*.

C) and D) are tempting. However, that the SAT has had to alter its content does not result from the fact that the SAT has long been a popular test. The SAT altering the test is a *result* of the ACT becoming more popular.

2. C

There is cause and effect here: ocean temperatures increasing (cause) and organisms moving from their traditional habitat (effect). So *C) therefore* is the answer.

**A quick note on subordination:** There's actually one other important idea about subordination that is likely to come up on the test. If a clause is subordinate, it is a *dependent* clause: not a stand-alone sentence. It depends on something; that something is an *independent* clause.

*Because he was tired*

*Though he was smart*

The above are both dependent clauses. They need an independent clause to complete them:

*Because he was tired, he wasn't able to study all the material before the test.*

*Though he was smart, he never cared to study.*

The SAT might test this in the following way:

*Although El Niño is typically associated with a sharp spike in annual rainfall on the West Coast, though there are other meteorological factors that can offset this effect.*

*A) NO CHANGE*
*B) West Coast. Though there*

*C) West Coast, there are*

*D) West Coast. There*

So what's wrong with this sentence, exactly? Well, a dependent clause *depends* on an independent clause, which is fancy-speak for a complete sentence. However, the part that comes after the dependent clause, which begins with "although," also starts with "though." When a phrase starts with "although," "though," "despite," "because," etc., it is a dependent clause. Therefore, we have back-to-back dependent clauses—a big no-no. Getting rid of the "though" gives us a complete sentence ("There are other meteorological…offset"). Answer C) fixes this without turning the first part of the sentence into a fragment.

### 3. Parallel Structure

There are two things you'll want to remember when it comes to parallelism on the SAT: it comes up in parts of speech and lists.

Parts of speech include adjectives, nouns, verbs, etc. If I **list** several things, those things should be in the same form, i.e. they should use the same parts of speech. For instance, in the sentence below, the list is made up of three things: read magazines, watch television, and play video games.

✖ *George likes to read magazines, watch television, and he plays video games.*

✖ *George likes to read magazines, watch television, and plays video games.*

➜ *George likes to read magazines, watch television, and play video games.*

In the first two examples, we have two verbs that are parallel ("read" and "watch"). What I mean by *parallel* is they have the same form: they are not "reads" and "watch," or "read" and "watches" or "watching."

Notice that we could use some other form of the verb, as long as the three parts that make up the list must be in the same form.

➜ *Reading magazines, watching television, and playing video games are three things George likes to do during his free time.*

## Parallelism and Correlative Conjunctions

There is a special type of conjunction called the correlative conjunction. You don't really have to know the name, but you have to know the function. More specifically, you have to remember when you see these conjunctions to think "parallelism."

## Correlative Conjunctions

Not only A but also B
Both A and B
Either A or B
Neither A nor B

What in tarnation does A and B mean? In the above examples, "A" stands for a word or phrase and "B" stands for a word or phrase. These words or phrases should be parallel. In other words, A and B should have the same parts of speech.

> *Not only is he funny, but he is also clever.*

In this case A and B are adjectives.

**SAT-Level Example**

> ✖ *Not only has he **squandered** an important opportunity, but he is also **upsetting** many people close to him.*
>
> ➜ *Not only has he **squandered** an important opportunity, but he has also **upset** many people close to him.*

*Squandered* is in the simple past tense; therefore, we need the simple past tense of *upset*, which is *upset*. Notice in the incorrect example, squanderED does not match upsettING.

On more advanced parallelism questions, there won't just be two words that have to be parallel, but entire phrases. Other times, the SAT makes a question difficult because the verbs are buried in a morass of words, as the example below shows.

**Mini-Quiz**

*Playing video games, unlike watching television, is not a passive activity, because doing so requires that the video game player react to what's happening onscreen, strategizes to overcome obstacles, and that she persevere to advance through the most difficult stages of the game.*

*1.*

*A) NO CHANGE*

*B) that she strategizes*

*C) that she strategize*

*D) strategize*

*2.*

*A) NO CHANGE*

*B) she persevere*

*C) she perseveres*

*D) persevere*

**Answers and Explanations**

The video game player has to do three things: *react*, *strategize*, and *persevere*. The verb form is something called the subjunctive, which often pops up in words that indicate a command, request, or a requirement. You don't actually have to know that this is called the subjunctive, but you do have to notice that the correct sentence does not say, "the video game player **reacts**"; a verb usually takes an 's' on the end when it refers to a third person subject ("he walks," "she dances," etc.), but not here!.

Here, it is *react*, not *reacts* (again, that's because we have the verb "require that," which removes the -s from the end of a verb referring to the third person. Therefore, the other two verbs must both be in this form, giving us *strategize* and *persevere*. Therefore, the answer to both 1) and 2) is D).

### 4. Modifier Placement

New or old, the SAT has always loved to test this concept. Why? There is clear, logical reasoning behind the correct answer, yet many disregard this in everyday speech. And when "what sounds right" and "what is actually right" conflict, you can bet the SAT is waiting there with a carefully engineered question to trap the unwary.

So take a look at the following sentences and ask: is anything wrong?

*Studying for finals and playing high school sports, it is hard for many to find time.*

*Living for seven months in Madrid, Martha's fluency in Spanish increased rapidly.*

Not so sure? Well, what about the following examples?

*Running down the street, a bicycle hit him.*

*Flipping through channels, the television suddenly turned off.*

Something weird is clearly going on. Was the bicycle running down the street? Was a television sitting on a couch and eating Doritos, while flipping through channels?

To avoid such absurd scenarios, we have to make sure that when there's a phrase beginning with an *-ing* verb (called a participle), that the phrase ending right before the comma accurately describes the subject that comes right after the comma.

*Running down the street, he had to jump out of the way of an oncoming bicycle.*

*Flipping through channels, Dexter threw his hands up in frustration when the television suddenly turned off.*

Now let's go back to those first two examples. Can you think of ways to improve those sentences? Give it a shot. Makes sure the "-ing phrase" correctly modifies the subject. The correct versions of the sentences are immediately below (don't peek!)

➞ *Studying for finals and playing high school sports, many students find it hard to focus on anything else.*

➞ *Living for seven months in Madrid, Martha became fluent in Spanish.*

*Modification* is basically a fancy way of saying "describing." And you can think of the "-ing phrase" as a large adjective that should logically (don't forget the Doritos-eating television) describe the subject.

Sometimes, though, modification comes after the subject.

*John sat on the couch eating Doritos and watching a blank screen.*

*John sat on the couch, eating Doritos and watching a blank screen.*

One of these sentences implies that the couch eats Doritos (which isn't too absurd if you look under some couches). The other is correct because it (correctly but sadly) describes John eating the Doritos and watching a blank screen.

The correct sentence uses a comma to separate the phrase, "John sat on the couch" from the phrase that says "eating Doritos…" When the "-ing phrase" comes after the comma, the action in that phrase should always describe the subject of the sentence. In this case, John is that subject.

On the other hand, if you don't have a comma separating the "-ing phrase" from the rest of the sentence, then that phrase must logically describe the noun that comes immediately before it. In the first sentence (the one without the comma), there is no comma separating "couch" and "eating." Therefore, that sentence implies (incorrectly) that the couch is eating Doritos and watching a blank screen.

**Mini-Quiz**

*Students multitask everyday, indeed many times a day, students believe they are very adept at juggling two or three different activities while studying for a midterm. Though they may well be able to learn while multitasking, it is not nearly as efficient as focusing only on studying. Yet many students continue to pass up an optimal studying environment preferring to multitask at every opportunity.*

*1.*

*A) NO CHANGE*

*B) To multitask*

*C) Students multitasking*

*D) Multitasking*

*2.*

*A) NO CHANGE*

*B) environment; preferring*

*C) environment, preferring*

*D) environment, they prefer*

**Answers and Explanations**

1. D

As written, the first sentence has two subjects ("students" and "students"). Since *students* is already the subject of the clause beginning "students believe…," it is easy to add a dependent clause, specifically an "-ing phrase" and voila! We have a valid sentence. (C) is wrong because it also repeats the subject, "students.")

2. C

As written, the third sentence implies that the *environment* prefers to multitask. By putting a comma between "environment" and "preferring," the sentence is correctly structured to indicate that "preferring" refers to the subject, "many students."

## 5. Inappropriate Shifts in Verb Tense, Mood, and Voice

### Verb Tense

Consistency. That's the first thing you have to remember about verb tense. If you are telling a story about the time in the 7th grade where you got lost hiking in a thunderstorm, don't suddenly shift to the present tense. Sometimes, tenses also shift from past to present, and vice versa. It all depends on context.

While that may sound pretty straightforward, we tend to lose track of proper tenses when the topic is not that familiar and we're reading about it on the SAT.

> *19th century musicians had grueling practice sessions to help them master the rigors of their respective instrument. Today, instrumentalists must also practice many hours a day. Some argued that, with the "make-it-or-break-it" competition musicians must face, practice sessions are more grueling than at any other point in history.*
>
> *A) NO CHANGE*
> *B) had argued*
> *C) would have argued*
> *D) argue*

The context here compares musicians of the 19th century to musicians today. The passage describes the 19th century musicians using the past tense, and switches to the present tense to describe today's musicians. Notice how the part being tested, "argued," is in the past tense. Notice, too, how the "some" doing the arguing are discussing practice sessions *today*. Therefore, we want the present tense: Answer D).

The test can get a little more complicated by asking you to differentiate between present perfect and present tense.

> *Since the 6th grade, I have kept a daily diary.*

**SAT-Level Example**

> *Ever since the advent of moving pictures, directors have been refining film techniques.*

Whenever you have an action that started in the past but continues today, you should use the present perfect (*have kept, have been*). To make that clearer, the test will almost always throw in either the word **"since"** or the phrase **"from [time period] till today."**

**Mood**

"Mood" is a strange word choice to describe a grammatical subtlety. And for that reason, I think it turns many students off (and puts them in a bad mood, as it were).

What we mean by *mood* in grammar-speak is whether the verb is a command ("imperative mood"), a question ("interrogative mood"), or a conditional ("subjunctive mood").

Imperative Mood

This will show up on the SAT in the form of a verb. "Command words," or phrases such as "request that," "order that," or "require that" are followed by "be + verb participle."

*The teacher demanded that the hyperactive student **be seated** the entire class.*

*He requested that she **be present** at the meeting.*

Subjunctive Mood

The subjunctive mood is so rare that it showed up in about one question in the practice tests in the College Board book. So if you have to skip one section of the grammar review, this might be the one.

The subjunctive mood implies conditionality, or a hypothetical: something that isn't and can't be reality. It's like saying "imagine if." To show this, we change the verb "was" to "were." If the verb is already "were," then we just leave it. (E.g., "Were we space aliens, we could travel the cosmos.")

*Were she responsible for the break-in, she would not have an airtight alibi.*

*If I were president of the United States, I would make "taco Tuesdays" a national holiday.*

Both of these examples are in the "subjunctive mood" because they describe something that couldn't possibly be. In the second example, I'm implying there is no way I'd ever be president of the United States—sorry, no "taco Tuesdays." When something *is* possible, you don't need to change the verb to "were."

Notice how I didn't mention the "interrogative mood"? That's because in this mood, nothing changes with the verb; therefore, there's no easy way for the SAT to test it.

**Voice**

Throughout this eBook, I have used two tones when coming up with example sentences: One that is casual and chummy (the "taco Tuesdays" voice) and another that is more formal ("the SAT voice"). The SAT wants to make sure you know when to use the appropriate tone of voice. That is, you don't want to say something in a casual, lax way when writing an essay, or, in this case, editing an essay that the SAT has provided.

In the sentence pairs below, one maintains a consistent tone, whereas the other lapses into casual speak.

*1a) The SAT places harsh demands on a student's attention, forcing them to be focused for almost four hours straight.*

*1b) The SAT is really hard because you have to keep your mind on the task for four straight hours.*

*2a) Working in groups can lead to high employee productivity while making people feel good about working with others in the office.*

*2b) Working in groups can lead to high employee productivity while fostering goodwill between colleagues.*

**Answer:** 1b and 2a are too casual for the likes of the SAT.

Language can also be too stilted, or formal. The SAT—and any manual of style (and good sense!)—will tell you to avoid overly formal language. Can you spot the offender below?

*3a) The SAT is highly onerous on minds exhibiting a propensity for divagation.*

*3b) Students who are serious about SAT prep are more likely to seek outside help, and are thus more likely to see a score improvement.*

**Answer:** If you are not quite sure what 3a) is saying, you are not alone. It uses over-inflated, pompous language.

Among students (and you might even be one of them), there's a notion that sprinkling fancy-sounding SAT words into your essay is a mark of good writing. That thinking, however, is a gross misconception. See, there is a major difference between the discernment used in choosing a particularly apt word and the desperation to sound intelligent by using words like "divagation" (don't worry, that word will not be on the test!). The latter will confuse your reader, muddy what you are trying to communicate, and ultimately turn the reader off from what you have to say.

**Mini-Quiz**

*There is, of course, a dark side to video games. Like any activity that is based on a system of rewards, video games can cause people to overindulge and neglect other aspects of their lives, all so they can reach the next level in their favorite games.*

*A) NO CHANGE*
*B) stop doing other stuff*
*C) cease in the engagement with other significant life activities*
*D) fail to attend to urgent facets of life*

**Answer and Explanation**

B) is too casual. Both C) and D) are too formal and wordy. A) is consistent with the tone and level of formality found in the rest of the sentence.

### 6. Inappropriate Shifts in Pronoun Number and Person

Every time you see a pronoun on the SAT, that pronoun should be clearly linked to a noun. That noun is what we call the *antecedent*. Typically, it'll come before the pronoun (but not always). The main point of this is to avoid a mysterious "he" floating around in a paragraph. The "he" should clearly refer to Jim, Bob, or whatever male you are writing about.

> *Jim was voted class president mainly because he is very popular amongst the student body.*

**SAT-Level Example**

*Though Einstein is lauded for his genius, he wasn't particularly adept at mathematics and, to support his more complex theories, he often relied on his more computationally-minded peers to crunch the numbers.*

**Number**

In the last sentence, you can see that both of the "he" and "his" pronouns refer to Einstein. This use of pronouns isn't unusual. Things get a little more complicated when we drop the word "number" into the verb-pronoun mix. "Number," as far as verbs and pronouns go, means either *singular* or *plural*. We don't have to get more specific than that.

For instance, the number of 'I' is singular; the number of 'we' is plural. However, most of us are unlikely to mix those two up. The SAT will most likely test you by taking a plural subject and using the "it" pronoun to refer to a plural subject, or vice-versa. See if you can spot the error below.

*Bobby forgot to do several assignments but turned it in later.*

In this sentence, what does "it" refer to? Common sense tells us: the "assignments." Indeed, we speak this way and would understand exactly what the person is saying in real life. However, in writing, you have to make sure that the pronoun matches the subject in terms of number. In this case, "assignments" is plural; therefore, we need the plural pronoun "them." (Some students are often surprised to see "them" refer to non-human subjects and abstract nouns, but this usage is 100% correct.)

➜ *Bobby forgot to do several assignments but turned them in later.*

By the way, if you are still not convinced and think that "it" refers to homework, which is singular, remember that the noun *homework* actually has to show up somewhere in the sentence for it to be an antecedent.

**Person**

The SAT likes to create sentences that switch from the third person (one) to the second person (you) or vice-versa. When you see these, always remember that the correct pronoun is the one that appears in the non-underlined part.

To give you a little refresher, here is a table showing the different number and "person" of pronouns.

| | 1st person | 2nd person | 3rd person |
|---|---|---|---|
| **Singular (subject)** | I | you | he/she/it |
| **Singular (object)** | me | you | him/her/it |
| **Plural (subject)** | we | you | they |
| **Plural (object)** | us | you | them |

**Mini-Quiz**

*We have all received them: emails claiming that we have won or inherited a large sum of money. While most of us see these emails for what they are—utter scams—a small percentage are lured in, believing that they are indeed the recipients. Yet Internet scams are not always so obvious and so one needs to be on guard against far subtler forms of online deception.*

*1.*
*A) NO CHANGE*
*B) you need*
*C) we need*
*D) they need*

*Often, a scammer will pose as a legitimate company, sending an email that has the insignia and branding of that company. Called "phishing," this method of extorting confidential financial information from online users is on the rise. Indeed, if one looks at recent emails, they are likely to come across an email that seeks to "phish." Of course, you probably do not even bother to open such an email in the first place, because it seems like junk mail, or mass email.*

*2.*
*A) NO CHANGE*
*B) he and she is*

*C) you are*

*D) one is*

*3.*

*A) NO CHANGE*

*B) we probably do*

*C) they probably do*

*D) one probably does*

**Answers and Explanations**

1. C

From the very beginning of the paragraph, the pronoun “we” is used. There is even an “us,” signaling that we are using the third person plural. “You” is the second person. We can’t just change the pronoun of the audience we are addressing. Whichever pronoun is *not* underlined determines the pronoun the essay should use to address the reader.

2. D

Here, the author uses the third person singular pronoun “one.” To keep this consistent, the first underlined part should read “one is.”

3. D

Here, the pronoun changes to "you." Again, keep it consistent with the pronoun “one,” which appears in the non-underlined part of the paragraph.

## Conventions of Usage

### 1. Pronoun Clarity

See if you can figure out what's wrong with the following sentences.

> *Nancy and Mary took her mother to the movies.*
>
> *Gary gave Dave his laptop.*

In the first sentence, to whom does "her" refer? Is it Nancy's or Mary's mother who is going to the movie with them?

In the second example, we face a slightly more subtle Issue. Are we talking about Gary's laptop, or are we talking about Dave's laptop? The "his" doesn't tell us, so it is an ambiguous pronoun, meaning it can logically refer to more than one thing. On the SAT, this is a big no-no.

Though this error isn't as common as pronoun issues with number and person (see previous section, in "Standard English Conventions"), it does come up sometimes on the SAT.

**SAT-Level Example**

> *Tests on humans and laboratory rats can yield dramatically divergent results. When **they** do, people are bound to notice. But in those many instances in which **they** have tested experimental drugs on both rats and humans, and the results are the same, few take notice.*

The first "they" should clearly refer to a plural noun in the preceding sentence. However, there are many plural nouns in the first sentence: test, humans, rats, results. Therefore, the "they" is potentially confusing. So, instead of "they," we should repeat the subject: the tests. Note that if the sentence contained only one plural noun, "they" would be okay, especially if the sentence were shorter and/or the plural noun were closer to the pronoun that refers to it. i.e., *Clinical tests can yield useful information. Whey they do…*

The second "they" is confusing in a different way. Since the second "they" is closest to the plural subject "people," it creates an unintended meaning. It implies (absurdly) that people in general are testing experimental drugs on humans and

rats. In reality, “they” refers to experimenters in general. A good idea is to replace the second “they” with “experimenters” or “scientists.”

### 2. Possessive Determiners

Without any context, do you know the difference between the following:

- It’s vs. Its
- Their vs. They’re vs. There
- Your vs. You’re

If not, here is the breakdown:

- It’s = It is (It’s going to rain.)
  Its = possessive pronoun (The dog had its tail in its mouth).

- Their = possessive pronoun (Their friends are the snootiest of the bunch).
  They’re = they are (They’re the snootiest bunch I’ve ever met).
  There = place (I am going over there to study).

- Your = possessive (Your friend is totally stuck-up).
  *You’re = you are (You’re the snootiest person I know).

*Remember to always write “you’re welcome.” “Your welcome” implies that you possess the welcome, as in “you’ve outlived your welcome.”

**Mini-Quiz**

*Workers given freedom to set their own agendas tend to be highly productive. According to several recent studies, however, their the most productive when they not only determine their own agenda but also when they’re is a daily system of accountability. It’s something backed up by study and practice, the idea that workers are most productive when there is some oversight but when workers get to own their projects.*

*1.*

*A) NO CHANGE*

*B) there*

*C) they're*

*D) theirs*

*2.*

*A) NO CHANGE*

*B) there*

*C) there's*

*D) theirs*

*3.*

*A) NO CHANGE*

*B) Its*

*C) They're*

*D) There's*

**Answers**

1. C

2. B

3. A

### 3. Agreement

The SAT has always loved agreement—it's easy to test and it's easy to make a difficult agreement question. But before we explore how the College Board does this, let's talk about what agreement is: it is when the subject and verb are consistent in terms of number.

We've talked about number in the context of pronouns. It's no different here, in the sense that "number" refers to whether a noun is singular or plural. **The difference is the verb**. Some verbs will take an -s at the end, depending on whether the subject is singular or plural.

*He watches many movies.*

*They watch many movies.*

*I watch many movies.*

The SAT is more concerned with abstract nouns such as "the analysis," "the observation," "the description." All of these nouns are singular and correspond to the third person pronoun "it."

For example, which of these sentences is correct?

A. *The analysis shows that Tim is the better soccer player.*
B. *The analysis show that Tim is the better soccer player.*

The correct answer is A. If you chose B, don't worry. This can throw a lot of students off at first. Ask yourself, is "analysis" plural or singular? It's singular. So now, let's look at the sentence this way:

A. *It shows that Tim is the better soccer player.*
B. *It show that Tim is the better soccer player.*

Substituting the noun "analysis" with the pronoun "it" clears up the confusion: the agreement "it shows" is correct. If this is still a little confusing, remember that the '-s' only comes at the end of the verb if the subject/noun is singular (*he*, *she*, *it*, or some abstract noun that is singular).

If you've gotten what I've said so far and are thinking, *what's so hard about that?*, beware: the SAT has a little something else up its sleeve.

*The analysis of the two soccer players show that Tim is the better player.*

What's the subject?

Many students think that the subject is "two soccer players," which is plural and that "show" is the right answer. However, "two soccer players" is not the subject; it's "analysis." The subject, at least on the SAT, will always come before the first preposition (words such as "of," "in," "on"). Notice, in the sentence above, the word "of" comes after "analysis." That's because on the SAT, **the subject will always come before that preposition**.

Take another stab at finding the subject.

*Research into the habitats of meerkats show that the animal is highly social.*

What's wrong with the sentence?

Well, first, figure out what the subject is. Remember to look at the first preposition. If you spot the "of," don't think it's the first preposition just because it was in the previous example. Go back further in the sentence to "into," which is *also* a preposition. Therefore, the subject—remember, it comes before the first preposition—is "research," which is singular. Therefore, "show" should be "shows"—as in "research shows."

See if you can figure out what the subjects in the following sentences are:

*A mastery of cardiopulmonary techniques and other lifesaving tactics potentially turns an average person into an instant hero.*

*The number of students who are pursuing postsecondary education is increasing annually.*

In the first sentence, the subject is "mastery"; in the second sentence, the subject is "number." Both are singular, so the main verb of the sentence takes an -s at the end ("turns" in the first sentence; "is" in the second.) Remember, an -s at the end of the verb indicates a singular subject. There is one exception: In the case of "to be," that's not necessarily the case.

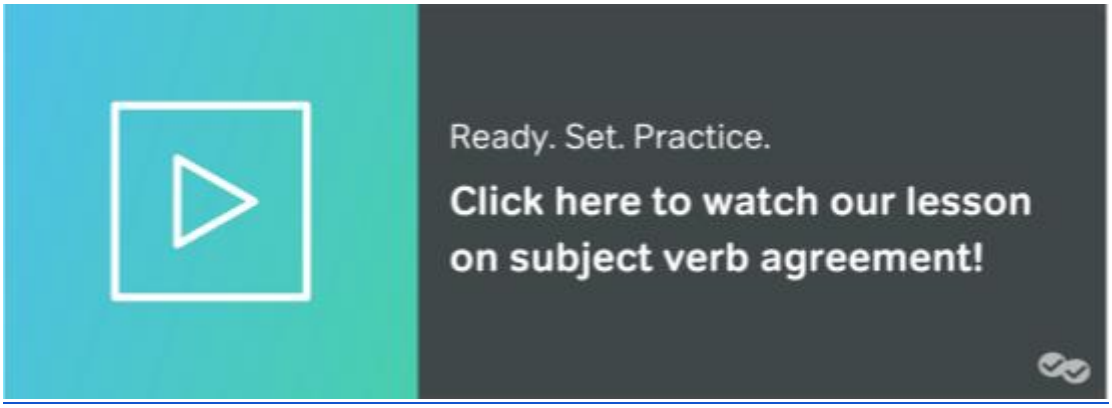
By now you might have noticed how the SAT makes agreement questions difficult: **it increases the "distance" between the subject and the verb that refers to that subject.**

To illustrate this, I've eliminated all the words that come in between the subject and the verb:

*A mastery turns an average person into an instant hero.*

*The number is increasing annually.*

To become strong at these question types, that is what you have to do: Quickly ignore the extra words and home in on the subject, which comes before the first preposition.




### 4. Frequently Confused Words

Frequently confused words are, well, confusing. Unlike many of the other sections we've gone through thus far, I can't show you the logic or a quick rule or two that you need only apply correctly to do well. Knowing the definitions of words, and those of words that look similar, takes a lot of practice.

Luckily, there are two pieces of good news: this question type isn't very common, and there are lists of commonly confused words all over the Internet. Here are a few of the good ones, though I encourage you to search for commonly confused English words in order to get the fully monty.

except vs. accept
precede vs. proceed vs. proceeds

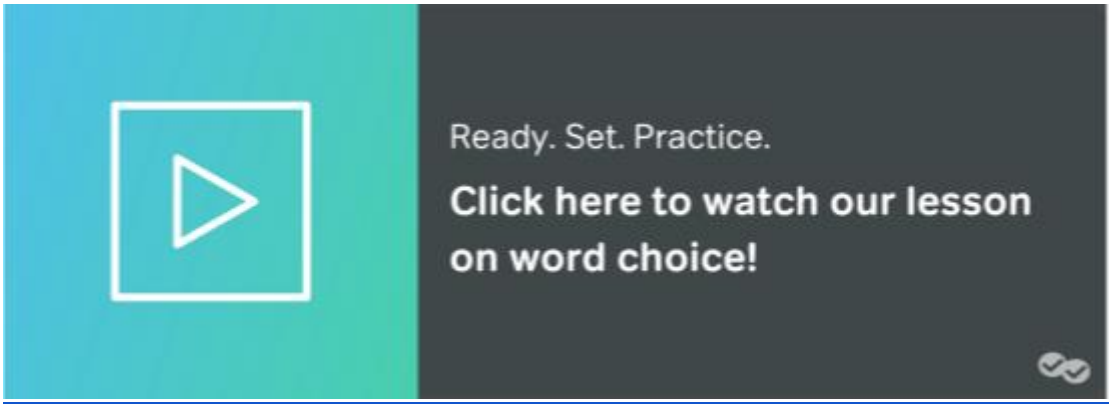
affect vs. effect

conscience vs. conscious

allusion vs. illusion

principle vs. principal

Basically, focus on other SAT grammar concepts before moving on to this. But if you are ever unsure how to spell a word because it sounds like a similar word, make sure to look up both words so you know the difference. Who knows? That very word pair may show up test day.




### 5. Logical Comparisons

An easy way to think of this is: you must compare apples to oranges. You can't compare an orange to the taste of an apple, or the taste of an orange to an apple. You can, however, compare the taste of an orange to that of an apple. (In the previous sentence, the word "that" refers to taste. Instead of repeating "taste," a noun already mentioned in the sentence, we use the pronoun "that of" (for singular nouns) or "those of" (for plural nouns).)

The SAT is very particular about this rule, so even though it's clear what two things are being compared, you must always be as literal as possible.

✖ *According to some, the use of sriracha as a condiment will soon surpass mustard.*

➞ *According to some, the use of sriracha as a condiment will soon surpass THAT OF mustard.*

(We are comparing the use of sriracha to the use of mustard.)

✖ *Mozart's piano works are much easier to learn than Chopin, a reason why many beginners will know how to play a piece by Mozart, but not one by Chopin.*

➜ *Mozart's piano works are much easier to learn than THOSE OF Chopin, a reason why many beginners will know how to play a piece by Mozart, but not one by Chopin.*

("Those of" refers to "works.")

### 6. Conventional Expression

The College Board describes "conventional expression" problems as the following: "Conventional Expression questions don't fit neatly into one of the usage types listed earlier, but like them they focus on recognizing and correcting instances in which word choice doesn't conform to the practices of standard written English."

## Conventions of Punctuation

### 1. End-of-Sentence Punctuation

Although first in our list of punctuation conventions, this issue is pretty obscure and not that likely to show up on the test. So if you skip this, it's not *that* big of deal (but make sure that you are paying attention to the rest of this list!).

So here it is: when somebody asks an indirect question, you don't want to end that sentence in a question mark. What is an indirect question, you ask? Take the following situation.

> *Mark: Is Patty going to the movies with us?*
> *John: I don't know. I guess I'll ask her when I see her next.*
>
> *(Later that day)*
>
> *John: Hey, Patty, Mark asked if you are going to the movies with us.*
> *Patty: No, you guys are losers.*

Notice that when John asks Patty whether she is going to the movies, that sentence does not end in a question mark. And that's it. Again, very unlikely you'll see this on the test.

### 2. Within-Sentence Punctuation

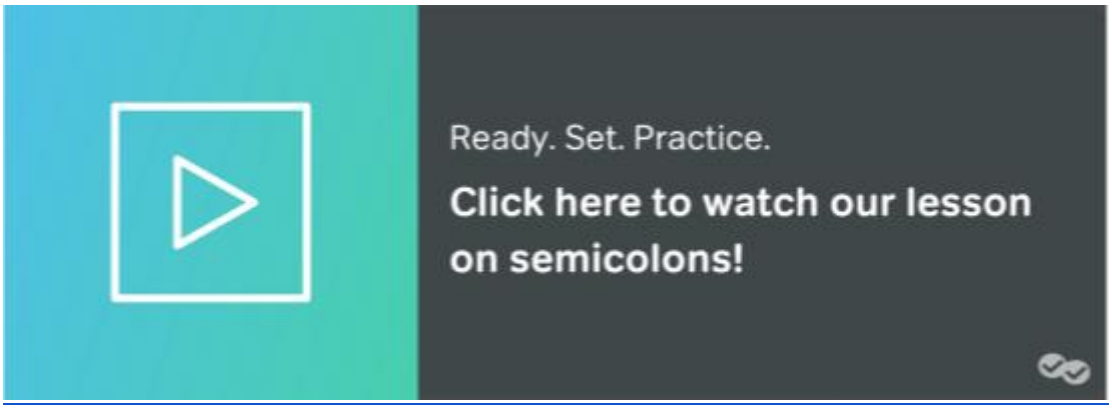
Another way to think of this is to ask if you know when it is appropriate to use semicolons, colons, and em-dashes. Yes, the dreaded semicolon—I had to get to it eventually. The good news is that the SAT is not asking you to use a semicolon in your writing; it's asking you to recognize when a semicolon is appropriate (as it was in the middle of this sentence). The same is true of colons and em-dashes.

Below is a quick breakdown of each. And I promise, semicolons are not as bad as you think they are.

**Semicolons**

The bubonic plague, public speaking, not having your phone on a transatlantic trip—few things are as dreaded in life as the semicolon. But there is no reason to fear this oft-maligned punctuation mark, especially the way it is used on the SAT. It's actually pretty straightforward: **A semicolon is used to separate two independent clauses.**

That's it. That is all you have to know.




Sure, the essence of the semicolon is that the two independent clauses are closely connected, and so it wouldn't make as much as sense to use a period. Of course, that becomes a judgment call and is at least part of the reason that many feel uncomfortable using a semicolon. But the SAT is only going to ask you about whether or not a sentence correctly uses a semicolon; it is not going to ask you to write a sentence using a semicolon. (Like how I dropped that semicolon in there?)

So let's put you to the test. Which sentences correctly use a semicolon?

*1) For my upcoming hike, I pack several things; a compass, a first aid kit, a water heating contraption, and a pocketknife.*

*2) I visited several colleges during my senior year; none of which I liked.*

*3) I was hoping to work in the Peace Corps after graduating; I was hoping to make a difference.*

*4) Most smartphone users operate under the assumption that smartphones will somehow make them smarter; yet because excessive cell phone use diminishes many basic cognitive abilities, such as working memory, this is not necessarily the case.*

**Answers and Explanations**

1. Incorrect

This sentence requires a colon (see colon section), not a semicolon.

2. Incorrect

"none of which I liked" is not an independent clause/legitimate sentence.

3. Correct

The clauses to either side of the semicolon are both independent clauses.

4. Correct

This is a meaty sentence, about as complex as anything the SAT will throw at you. Though the clause immediately following the semicolon starts with the words "yet because," it is part of a complete sentence since it is linked by a comma with the independent clause "this is not necessarily the case."

**Colon**

The colon has two main uses, one of which we learned in grade school. If you are going to describe a list of things, you use a colon.

> *I want many things in life: a new flat screen television, an exercise bike, a massage chair, a video game system, and a year's supply of Oreo cookies.*

The SAT knows that most students are familiar with a basic list of things following a colon, so they'll try to jazz things up by adding a list of complex clauses.

> *As soon as Sandra stepped outside the airport, she knew she was in a foreign land: the smell of mangoes wafted in the light breeze, the shouts of food cart vendors punctuated the humid air, and a language she recognized only from Rosetta Stone courses rang in her ears.*

The colon can also be used to separate two clauses, the second of which elaborates on the first. I am now going to illustrate this: here is a sentence that uses a colon. You can think of the first part as announcing that it is going to tell us something. The second clause is this thing it's announcing.

> *She wanted only one thing in life: to become senior class president.*

**Em-dashes**

If, when I first mentioned em-dashes a minute ago and you were thinking, *I'm not worried about the semicolon*; *what the %$& is an em-dash*?, you've come to the right place.

First of all, this is an em-dash: —

If you see an em-dash mid-sentence, it is used in one of two scenarios:

1. A list of things mid-sentence

Usually, we see a list of things after a colon. But if a list comes mid-sentence, we want to set it off using em-dashes.

> *There are some punctuation marks—colons, semicolons, em-dashes—that scare the crap out of people.*

Notice that in the list, I did not use an "and" to connect the 2nd and 3rd nouns, the way you usually would ("he hates using colons, semicolons, and em-dashes").

2. It emphasizes a parenthetical statement

> *Sentence #1 - She helped him as much as she could (she passed up going to see Taylor Swift in concert), and yet he made more demands on her time.*

> *Sentence #2 - She helped Sylvester as much as she could—she passed up going to see Taylor Swift in concert—and yet he made more demands on her time.*

The difference between these two sentences and the reason that sentence #2 is probably what the writer is going for (though both are grammatically correct) is that sentence #2 emphasizes *how much* she gave up to help Sylvester—she missed the Taylor Swift concert. Were that not that big of a deal, just a passing thought the writer wanted to slip in there, then Sentence #1 would be fine.

Luckily, the test is not going to ask you to choose between em-dashes and parentheses. You just have to make sure that if an em-dash is used to emphasize a thought that it is set off by two em-dashes: one at the beginning of the phrase and one at the end.

➜ *Harold consumed lots of food—**four hot dogs, nine slices of pizza, a cheeseburger**—before passing out.*

✖ *Harold consumed lots of food—**four hot dogs, nine slices of pizza, a cheeseburger**, before passing out.*

✖ *Harold consumed lots of food—**four hot dogs, nine slices of pizza, a cheeseburger**; before passing out.*

✖ *Harold consumed lots of food; **four hot dogs, nine slices of pizza, a cheeseburger**—before passing out.*

✖ *Harold consumed lots of food, **four hot dogs, nine slices of pizza, a cheeseburger**—before passing out.*

The basic rule: if you start with an em-dash mid-sentence, make sure to use another em-dash mid-sentence.

### 3. Possessive Nouns and Pronouns

We all know how apostrophes work. What the SAT is going to test you on is singular vs. plural cases.

➜ *The team's victory was unexpected, even to the players' most diehard fans.*

✖ *The teams' victory was unexpected, even to the player's most diehard fans.*

In the second sentence, notice how "team" is made a plural possessive. However, there is only one team. Its victory is what is being mentioned. Also, note how "players'" becomes "player's," which is singular. A team is composed of many players, not just one.

### 4. Items in a Series

When a sentence lists three things—A, B, and C—these things are called items.

> *She likes to eat cookies, ice cream, and cotton candy.*

A = cookies
B = ice cream
C = cotton candy

The convention is that there is a comma between A and B, and B and C. Interestingly, the comma between B and C, called the Oxford comma, is not necessary. No less than the fancy-pants newspaper *The New York Times* has dispensed with it, so that a sentence containing three items will look like this:

> *She likes to eat cookies, ice cream and cotton candy.*

The SAT doesn't care about the Oxford comma; at least, it won't test you on it. What it does care about is longer lists, or lists that contain commas in their clauses. With all those commas floating around, the meaning might get muddied. One way to deal with all these commas is to separate the clauses with a semicolon.

> *I grew up with copies of Dickens, Thackeray, and Tolstoy sitting on shelves; unfinished literary essays and snippets of inscrutable poems gracing the kitchen table; and ceaseless literary chatter echoing in the hallways.*

A = Dickens, Thackeray, and Tolstoy
B = unfinished literary essays and snippets of inscrutable poems
C = ceaseless literary chatter echoed in the hallways

Speaking of inscrutable, by not using a semicolon to break up A, B, and C, we get this mess:

> *I grew up with copies of Dickens, Thackeray, and Tolstoy sitting on shelves, unfinished literary essays and snippets of inscrutable poems gracing the kitchen table, and ceaseless literary chatter echoing in the hallways.*

See, don't you want a semicolon or two?

### 5. Nonrestrictive and Parenthetical Elements

This is a scary section title, so I want to make it a bit easier to understand.

Compare the following two sentences:

*My biological mom, who lives in Seattle, is visiting this weekend.*

*My biological mom who lives in Seattle is visiting this weekend.*

One of these sentences is impossible. That's right! Even though the sentences are identical, word for word, they are completely different. And that's all due to one little comma. Compare:

*My biological mom, who*

*My biological mom who*

In the first fragment, we are defining mom. She is the one and only. And she happens to live in Seattle.

By dropping the comma, the second fragment is saying that out of all my biological moms, I am specifically talking about the one who lives in Seattle. But that is absurd. Everybody has always had one, and only one, biological mom. There is no need to specify *which* biological mom. However, that is what happens when we remove the comma between "mom" and "who": we are specifying which of your moms.

If we want to specify which subject, we don't use a comma to separate that subject from "that" or "who." The phrase that follows the word "who" is called an essential or a restrictive clause. (Yes, I know, it's totally annoying when grammarians have two terms—both of which sound technical—to describe the same thing, and then use the terms interchangeably.) For simplicity's sake, I'll stick to the terms *restrictive* and *nonrestrictive*, the way the test does.

Compare the following two sentences:

*My dog that sleeps outside has a nasty case of fleas.*

*My dog, which sleeps outside, has a nasty case of fleas.*

Unlike the "mom sentences," both of these sentences are possible. But one of them is implying you have more than one dog. Remember: when you do not have a comma between the subject and the word "who" or "that," you are specifying the subject. Therefore, the first sentence is specifying the dog that sleeps outside. By doing so, it is implying that you have at least one other dog that doesn't sleep outside.

When a comma separates the subject from a "which" or a "who," we are dealing with a subject that is the "one and only." So the second sentence is talking about your one and only dog, which sleeps outside and has a bad case of the fleas. The use of "which" signals the beginning of a nonrestrictive clause. The reason it is called a nonrestrictive clause is you could eliminate it without much change in meaning.

*My biological mom, who lives in Seattle, is coming to visit this weekend.*

*My friend who has the loan I'll need to pay rent is visiting this weekend.*

In the first sentence, we still know the key information: your mom is coming to visit. There is absolutely no vagueness because you know exactly which mom: your one and only biological mom.

By getting rid of the commas (and thus the clause) in the second sentence, essential information is lost. We have to know which friend out of all of your friends is visiting, because *this* friend is the one who is going to give you a major helping hand.

So how exactly will the SAT all test this? Well, the good news is that it won't be nearly as complicated as what we've studied. But to be confident, it helps to know the nitty-gritty details above.

The SAT will mainly care about proper punctuation. But it won't just be a question of "to comma or not to comma"; you will also have to rely on a basic knowledge of semicolons and em-dashes.

**Mini-Quiz**

*1. Most students who choose to go to graduate school must often take out student loans in order to attend.*

*A) NO CHANGE*
*B) students who choose to go to graduate school,*
*C) students who choose to go to graduate school—*
*D) students, who choose to go to grammar school*

*2. Many know only a few famous vistas of the Grand Canyon that actually wends 270 miles through the desert floor and has an average depth of one foot.*

*A) NO CHANGE*
*B) the Grand Canyon;*
*C) the Grand Canyon, that*
*D) the Grand Canyon, which*

**Answers and Explanations**

1. A

We are talking about a subset of most students: those who go to grad school. If we were to put commas after "most students" and directly after "school," we'd be defining "most students" as those who go to grad school.

Luckily, the test doesn't ask us to choose between the restrictive and nonrestrictive phrase based on this meaning. The difference between the correct answer and other answer choices is based on faulty grammar: (B) should have no comma directly after "school"; (C) has an unnecessary em-dash; (D) has only one comma and not two, as we would expect with a nonrestrictive phrase. The correct answer, (A), uses a restrictive phrase (remember: no commas).

2. D

We need "which" to show that the Grand Canyon is defined as the thing that "actually wends…" The original answer, (A), implies there is more than one Grand Canyon by using the word "that," which sets up a restrictive phrase. That sets up the unintended meaning that out of all the Grand Canyons, it is the one THAT wends.

### 6. Unnecessary Punctuation

Sometimes, when a subject is separated from its verb by many words, we are tempted to use a comma.

✖ *The spread of airborne infections in public places or in closely confined areas, is nothing new; our efforts to combat them, however, are more vigorous than ever.*

The subject of the sentence is "spread"; the verb matching that subject is "is" (way down there, next to the "nothing"). Because of this distance, we are tempted to put a comma there. However, if the subject is followed by a restrictive phrase (basically, there is no other comma separating the subject from a phrase that refers to it), then you should not put a comma before "is."

➜ *The spread of airborne infections in public places or in closely confined areas is nothing new; our efforts to combat them, however, are more vigorous than ever.*

If a phrase has a nonrestrictive clause between the subject and verb, always remember to use two commas: one right after the subject and one right before the verb.

✖ *At 900 pages, Don Quixote, which some considered the first novel ever written is no easy read.*

✖ *At 900 pages, Don Quixote which some considered the first novel ever written is no easy read.*

✖ *At 900 pages, Don Quixote which some considered the first novel ever written, is no easy read.*

➜ *At 900 pages, Don Quixote, which some considered the first novel ever written, is no easy read.* (Notice the two commas.)

## Expression of Ideas: The Art of Writing

Yes, this is a pretty pretentious title. But it's what the SAT gave us. For shorthand, "Expression of Ideas" will become (EOI) in this eBook, and I will drop “The Art of Writing” entirely, lest I start sounding all highfalutin.

EOI consists of three sections: **Development**, **Organization**, and **Effective Language Use**.

The College Board further breaks these sections down; however, they do it in such a way that the titles can be technical and difficult to remember. For instance, “proposition” is simply a fancy way of saying that students will have to consider adding, keeping, or deleting sentences. I’ll just give an overview of development, organization, and effective language. That way, you’ll know what to expect without getting bogged down in all the technical terms.

Finally, I’m not going to go as in-depth as I did with Standard English Conventions (the grammar part). It makes more sense to read about the different types of EOI and then do actual practice questions from the College Board or other sources. At the end of this section, we do have a practice writing passage in which I explain some of the EOI subcategories when they are relevant to a question.

### Development

These question types will ask you to add, delete, or keep a sentence depending on how it relates to the main idea of the passage or the paragraph. Often, this means you’ll have to evaluate thesis sentences or topic sentences. And that makes sense: your teachers have most likely (and correctly) stressed that the most important part of your essays is the thesis sentence followed by the topic sentence. This is the SAT’s way of testing how well you can handle the big ideas of an essay.

By the way, the College Board throws the graph question into this group, but are we going to worry about it? No. That fact is totally irrelevant. Just remember: out of 44 questions, there will be one graph question. My advice? Do a few practice graph questions from the College Board book. You’ll see that this is actually one of the easier question types on the Writing test.

## Organization

Development is about the main ideas of the essay; organization is about the details the essay uses to support these main ideas. Again, this is something you do when writing a standard essay. That is, you don't just drop a claim in the place of your topic sentence without ensuring that the sentences that follow support this claim.

This question will take an interesting form, as you'll see in the practice passage below. Basically, one of the paragraphs will have a bracketed number next to each sentence, signifying the position of that sentence in the paragraph (this is a lot clearer if you just look at the passage). Your job is to figure out the best placement for the sentence. This is very common; you'll begin to think of "organization" questions as the ones that ask you where to put the sentence. And that's perfectly fine. You do not have to know the specific name of any question type for the test; you just have to know how to approach the question.

## Effective Language Use

I actually like how the College Board breaks up this section, so I'll use its terminology here.

### Precision

In certain contexts, some words might be synonyms; in other contexts, if you use the words interchangeably, you are going to get some surprising (and unintended!) meanings.

*1a) As midnight approached, most of the campers **retired** to their tents.*

*1b) As midnight approached, most of the campers **returned** to their tents.*

*2a) Most of the people in the city who have **retired** settle down in the old person's community down the road.*

*2b) Most of the people in the city who have **returned** settle down in the old person's community down the road.*

In 1a and 1b, the words are interchangeable. But when the context is different, as in 2a and 2b, the meaning of "retired" changes. Then, you have a problem.

Here's another example in the form of an SAT question:

*Dickens' London was not the gleaming metropolis of today but a city in which the average living conditions were so gross that cholera epidemics were not uncommon.*

*Which choice best maintains the tone established in the passage?*

*A) NO CHANGE*
*B) negative*
*C) squalid*
*D) immoral*

**Answer and Explanation**

On some precision questions, you'll also be asked to eliminate answer choices that are too vague ("negative") or too informal ("gross"). D) Immoral is a specific word, but remember the retiring example above; it doesn't quite fit the context, since you can have immoral people or practices, but you can't have immoral living conditions. So C), squalid, is the best choice.

## Concision

Don't say the same thing twice; in other words, don't repeat yourself when you've already said the same thing elsewhere.

Yes, that's a grammar joke. I gave you an example of redundancy. I said something and then I repeated it, not word for word, but pretty close.

The test will always want you to avoid these redundancies in the spirit of concision. Also called *economy*, in a writing context, concision aims to use as few words as possible to express the exact same point.

While such criteria might strike you as being a bit vague, the test is always very clear when it is testing redundancy; you just have to pick up on the fact that it is testing concision/redundancy rather than precision/word choice. Let's try a few examples:

*1) On a yearly basis, the company has been making over 100 million dollars annually.*

*2) Johnny was not popular amongst his classmates because he was always spiteful and he showed malice at every turn.*

*3) Presently, I don't have the ability to help you at this moment because I'm too busy and need a break.*

How would this actually look on the test, given that an underlined part, and not the whole sentence, is being tested?

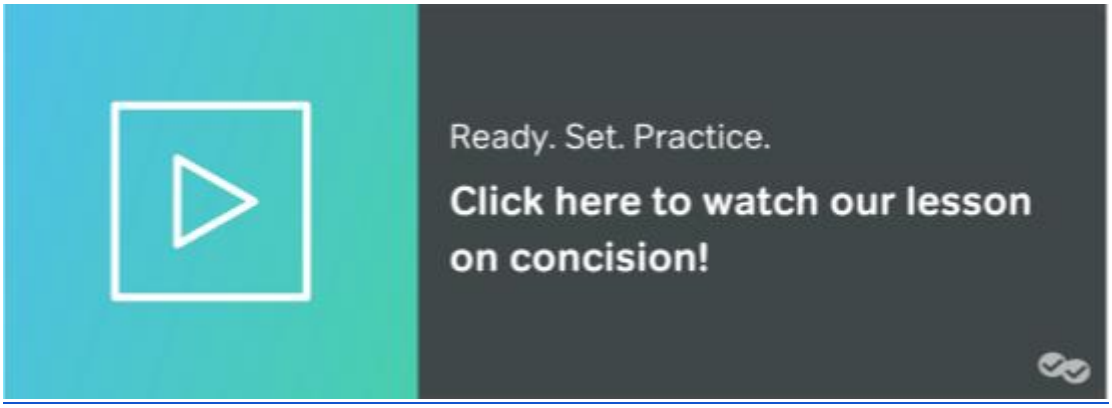
*Presently, I don't have the ability to help you <u>at this moment</u> because I'm too busy and need a break.*

*A) NO CHANGE*
*B) currently*
*C) really speaking*
*D) "delete the underlined portion"*

Here are the three words that are redundant in each of the examples above:

1) yearly = annually
2) "spiteful" means "showing malice"
3) presently = at this moment

**A final note on concision:** Oftentimes, an entire question won't be dedicated to concision. Rather, a question will be about some other grammatical rule, but one of the answer choices will happen to lack concision. That answer choice is almost always wrong.




## Style and Tone

### Tone

Sometimes when we write, we lapse into phrases that are too casual for an essay, but are ones we might very well use with our friends. On the flipside (or should I say "inversely"), we sometimes try to impress our teachers, or whoever it is reading our essay, by using overly formal and vocabulary-heavy phrases.

Finding that proper level of formality is the focus of tone questions. Since SAT writing passages are always written in professional style, the kind you'd encounter in an article found in a magazine (think *National Geographic*) or newspaper article (think the front page of the *Wall Street Journal*), the tone is never extremely casual, nor is it frighteningly stiff and formal.

Extremely Casual

1. That's neat what happened during the Olympics.
2. My job is super special.
3. Finding out stuff about the presidents isn't as boring as I thought.

Overly Formal

1. Superlatives abound in rendering the phenomenon concomitant with the Olympics.
2. My vocation affords more than a modicum of autonomy.

3. Imbibing knowledge pertaining to the former heads of the Oval Office proved more scintillating than I could have possibly envisioned.

What the SAT Likes

1. This year's Olympics proved to be a memorable one, with numerous world records being set.
2. My job allows me the flexibility to work from home and set my own schedule.
3. Learning about the lives of U.S. presidents was not nearly as dull as I had anticipated.

Notice that both the overly casual and the overly formal tend to be vague, whereas the proper level of writing is clear and specific without ever being verbose ("Imbibing knowledge" loses out to the unpretentious "learning" in the concision contest any day)

**Style**

Sometimes the SAT wants to know if you can pick up on a certain style a writer is using. Since it is difficult to test style without directly asking what the author is doing, the test writers have focused mainly on sentence structure. Specifically, there will be an uncommon way of arranging a sentence or sentences that the test wants you to pick up on.

You might be wondering how you'll know when you are dealing with this (rare) kind of question. Well, the test will most likely tell you in the question stem:

Which of the following answer choices is most consistent with the style used by the writer of the passage?

> *Standing in front of an audience of thousands was the greatest moment of the young singer's life. Faces glowed with adulation. Eyes fixated on her with wonder. People could not wait to hear her.*
>
> *A) NO CHANGE*
> *B) People were anticipating her singing.*
> *C) Ears perked up in anticipation.*
> *D) She was going to sing in the crowd's ears.*

Notice how C) parallels the structure used by the previous two sentences: body part + verb + preposition.

**Syntax/Combining Sentences**

Let me first give you the general definition of syntax; then, I'll tell you exactly how the test writers will use it (that's the more important part).

**Syntax: the arrangement of phrases, clauses and sentences.**

What this means as far as the test goes is how to best "combine sentences." That's the key phrase; you can forget the word *syntax*. Think of this section as "Combining Sentences." The test will never ask you whether you should combine sentences (they won't make you judge whether something is too choppy), but will only ask you how to best combine two or more sentences.

Short Underline

> *Miles Davis was an innovative jazz trumpeter. He developed a style known as "cool jazz.."*

This sentence is slightly choppy, so the test wants you to make it less so.

> *Which choice most effectively combines the sentences at the underlined portion?*
>
> *A) NO CHANGE*
> *B) jazz trumpeter who developed*
> *C) jazz trumpeter; and in his music, he developed*
> *D) jazz trumpeter, but developed*

**Answer and Explanation**

A) is choppy, meaning that it doesn't provide a transition word or phrase showing the connection between what comes before the period and what comes after it. Notice how the first part talks about how Miles Davis was innovative. The second part gives us an example: he developed a new style of jazz. D) is wrong because it indicates a contrast between the two sentences. C) is wrong for punctuation reasons. The 'and' directly after the semicolon is unnecessary. B) is correct

because it avoids the choppiness in A) by connecting the two sentences. 'Who' avoids the unwanted contrasted suggested in D).

Entire Sentence Underline

Let's take the same sentence and show you what else the test can do.

> *Miles Davis was an innovative jazz trumpeter. He developed a style known as "cool jazz."*
>
> *Which choice most effectively combines the sentences?*
>
> *A) Developing a style known as "cool jazz" is why Miles Davis was an innovative jazz trumpeter.*
> *B) Miles Davis was an innovative jazz trumpeter, and he also developed a style known as "cool jazz."*
> *C) A style known as "cool jazz" was developed by Miles Davis, an innovative jazz trumpeter.*
> *D) An innovative jazz trumpeter, Miles Davis developed a style known as "cool jazz."*

**Answer and Explanation**

One thing you'll want to look for in combining sentences questions is a logical "balance" between two sentences. Here, the logical connection is that Miles Davis's creation of a new style resulted from the fact that he was innovative: INNOVATIVE results in CREATION OF NEW STYLE.

A) I've mentioned before how concision can pertain to many question types. Here, "is why" leads to a sentence that lacks concision. Also, the original sentence is not expressing what made Davis an innovative trumpeter ("he developed a new style") but rather that he was an innovative trumpeter who invented this new style of jazz.

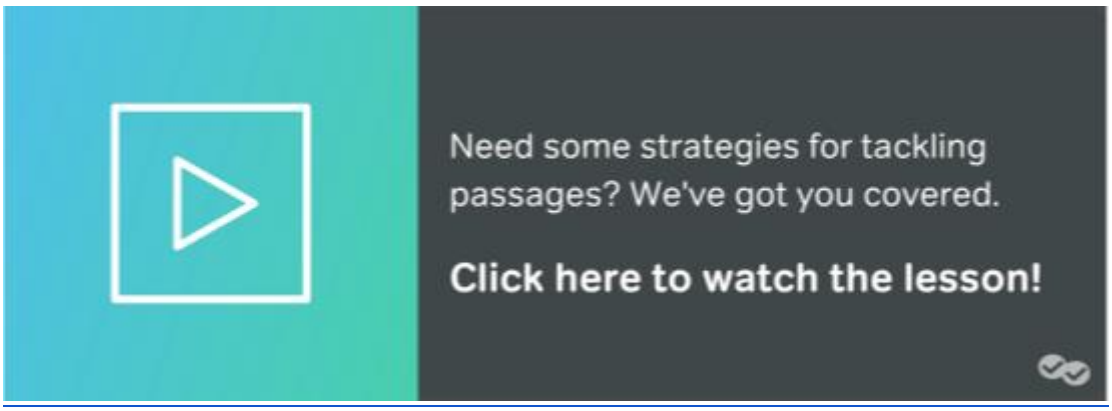
B), by using "and also," does not show this logical connection. This sentence makes it sound as though Davis was two relatively unrelated things: he was innovative and, by the way, he also created a new style.

C) is in passive voice. Think of passive voice as the "by tense," e.g., *The ball was hit BY him*. This is almost always considered incorrect on the SAT. That is, there will almost always be a perfectly good answer not in passive voice.

D) does a good job of showing the importance of the two parts of the sentence. “An innovative trumpeter” is not as important as “he created a new style.” Therefore, we make it a subordinate clause (“subordinate” means of lesser importance”). That puts the focus on the content of the main clause.

## Putting it All Together: Practice Passage

Only a few of the many grammatical principles above will be tested in any one passage. Over the course of an entire section, you'll likely see most of the categories tested at least once. However, some question types are so rare that they might pop up only once every few tests. I have tried to give a general sense of the likelihood that a grammar or stylistic concept will be tested. Still, you'll tend to get a better sense of this as you go through practice sections in the College Board book.




Here's a practice passage to get started with:

Many have heard of the sequoia trees, giant Californian redwoods. But few know that the trees are named after an actual living person, one who was a giant amongst his native people: The Cherokees.

Born in the late 18th century in Oklahoma, or what was then the Cherokee Nation, Sequoyah *SENTENCE STRUCTURE* **1** displaying early in life a knack for figuring out things on his own. For instance, to *EFFECTIVE USE OF LANGUAGE* **2** increase the efficiency of dairy production on the land his family owned he constructed a dairy house and devised a system of milk troughs. This ingenuity served Sequoyah well in his later vocation as a *CONVENTIONS* **3** silversmith, where he was able to create such interesting designs that his handiwork was highly sought after.

What Sequoyah is remembered for today, *SENTENCE TRANSITIONS* **4** however, had a far greater impact on the Cherokee Nation: he was the first to ever develop a functional alphabet for a Native American language. As a silversmith, Sequoyah came in contact with many white settlers and noticed the writing on their pieces of **5** paper, he described them

as “talking leaves.” *SENTENCE STRUCTURE* **6** Sequoyah, spotting the utility such an innovation offered, hoped to convince tribal elders that the Cherokee nation needed a similar way of communicating. The elders, however, expressed skepticism, thinking it impossible for somebody to communicate a person’s message if that person *VERB TENSE* **7** was not present. Some even believed that writing was a form of sorcery that should be avoided.

*SENTENCE PLACEMENT* **8** [1] Reassured by this reception, Sequoyah began finding a way to turn the complicated sounds of his language into a system of syllables. [2] Hoping to prove that the Cherokee language, like European languages, could be used to communicate important messages. [3] After isolating himself for a year, Sequoyah finally emerged with a viable system of writing. [4] Since much of his family believed that Sequoyah, during his year in seclusion, was practicing witchcraft, his six-year-old daughter became his unlikely pupil and quickly learned to read the language. [5] To convince the elders that the system actually worked, he needed a willing apprentice. [6] Securing an audience with the elders, Sequoyah asked them to say a word that he would *EFFECTIVE LANGUAGE USE* **9** proceed to write down. [7] Then, he would summon his daughter, who had been far beyond earshot, and she faithfully *PUNCTUATION* **10** read, to the astonishment of the elders—each word that had been written down. [8] Within months, Sequoyah had successfully taught the writing system to many Cherokees. *MAIN IDEA* **11**

1.
A) NO CHANGE
B) displayed
C) displays
D) is displaying

Difficulty: Very Easy

2.
A) NO CHANGE
B) make farm production better
C) augment the efficiency in the generation of dairy
D) ups the amount of milk that is produced

Difficulty: Medium

3.

A) NO CHANGE

B) silversmith, which

C) silversmith, in which

D) silversmith that

Difficulty: Medium

4.

A) NO CHANGE

B) For example,

C) , additionally,

D) , moreover,

Difficulty: Easy

5.

A) NO CHANGE

B) paper, describing

C) paper; describing

D) paper describing

Difficulty: Medium

6.

A) NO CHANGE

B) Sequoyah spotted

C) Sequoyah, he spotted

D) Sequoyah spotting

Difficulty: Hard

7.

A) NO CHANGE

B) had not been

C) were not

D) would not have been

Difficulty: Very Hard

8. Which of the following is the most appropriate place for sentence 5?

A) Where it is now.

B) Immediately before sentence 4

C) Immediately after sentence 2

D) Immediately after sentence 6

Difficulty: Hard

9. In context, which choice best combines the underlined sentences?

Reassured by this reception, Sequoyah began finding a way to turn the complicated sounds of his language into a system of syllables. Hoping to prove that the Cherokee language, like European languages, could be used to communicate important messages.

A) NO CHANGE

B) Sequoyah was discouraged by the reaction of the elders and spent several months avoiding the task of trying to transcribe the complicated Cherokee sounds into a consistent writing system.

C) Undeterred, Sequoyah began working on a way of transcribing the complicated sounds of his language into a system of symbols, hoping to prove that the Cherokee language, like European languages, could be used to communicate important messages.

D) Believing that the Cherokee language could be used to communicate important messages, like European languages, Sequoyah began finding a way to turn the complicated sounds of his language into a system of syllables.

Difficulty: Hard

10.

A) NO CHANGE

B) precede

C) succeed

D) progress

Difficulty: Medium

11. This writer wants to conclude the passage with a sentence that highlights the enduring legacy left by Sequoyah to his tribe. Which choice would best accomplishes this goal?

A) Many of the elders present were so impressed that they became experts of Sequoyah's writing system, and taught many other members of the Cherokee nation.

B) In 1825, nearly 10 years after its creation, the Cherokee nation officially adopted Sequoyah's writing system, an act allowing parts of tribe separated by long distances to communicate effectively with one another and merge the divided East and West tribes.

C) The most important aspect of Sequoyah's work was that it took a complicated phonetic structure and turned it into an alphabet that is readily accessible to anybody who wants to learn it.

D) Sequoyah will be forever remembered for the writing system he helped create, an innovation that is startling even in this day of high-powered computers.

Difficulty: Hard

**Answers and Explanations**

1. The first phrase, starting with "Born in the late...:" describes the subject, Sequoyah. However, the subject needs a verb in the present or past tense, not the participle form (you wouldn't say, "I eating my food"). Since the paragraph describes past events and sticks to the past tense throughout, we want answer (B).

2. In questions asking for the most appropriate way to phrase something (see the section on syntax), you want to choose an answer that is neither too casual nor too formal. You'll also want to make sure that the answer isn't too verbose (see section on concision) or vague. In this case, (B) is too vague. (C) is too formal and lacks concision. (D) uses such

colloquial words as “ups.” Also, "dairy" is the right level of formality. “Milk” is not quite appropriate and something more formal and Latin-based, such as lactal (not mentioned in the answer choices) would be too formal. So (C) is the answer.

3. The focus here is “vocation.” It is not an actual place so (A), which uses “where,” is incorrect. “Which” is tempting. But if you plug it into the sentence, it implies that Sequoyah created the vocation of the silversmith. (D) suffers from this same problem. When describing a noun that an action refers to, we want to use “in which.” Example: This was the game IN WHICH he SCORED the winning goal. (C) is the answer.

4. The previous paragraph gives a quick biography of Sequoyah’s accomplishment. The next paragraph transitions to the accomplishment that he is really known for. Therefore, there is a contrast between the accomplishments mentioned in the paragraph preceding this question and his main accomplishment: the creation of the Cherokee language. Only (A) gives us a contrast word.

5. As is, this question contains a classic SAT error: the comma splice. This happens when two independent clauses are joined by a comma (see comma section above). By putting a comma and the a participle immediately after that comment, we make sure that the phrase “describing them as ‘talking leaves’” refers to the subject, Sequoyah. (C) is incorrect because it uses a semicolon to separate a dependent clause starting with a participle and an independent clause. (D) implies that the paper described itself as “talking leaves”--an absurd statement. So, (B) is the answer.

6. This is a more advanced test of sentence structure. We can separate a subject from a verb using a participial phrase, as long as that phrase is set off by two commas. Therefore, the original is correct. (B) is wrong because we can’t have the participle in the -ed form if a comma separates it from an independent clause, the way we can with a participle ending in -ing. (C) unnecessarily repeats the subject. (D) omits the comma between the subject and spotting. (A) is the answer.

7. This is a difficult question because it uses the subjunctive case (see section on “mood”). When there is a hypothetical situation, the first and third person take on a plural form of a verb. Therefore, “was” should be “were” in “that person were” not present, since we are talking about a situation that is hypothetical (“thinking it impossible”). Answer: (C).

8. Sentence 5 says, more or less, that Sequoyah needed a willing pupil. Sentence 4 describes how most of his family thought he’d gone a little loopy, so he was forced to turn to his daughter as an apprentice. It makes sense to put the sentence saying that he needed a pupil before the sentence that describe the process of recruiting a pupil. Answer: (B).

9. The original has a fragment in the second part, since it lacks a subject and simply begins with the participle “hoping.” (B) is not grammatically incorrect. However, whenever the SAT uses passive voice (“discouraged by the reaction”), you want to find an answer that uses the active voice AND is grammatically correct. (C) is exactly that answer. (D), by using “like,” implies that Sequoyah is like European languages. Answer: (C).

10. To proceed to do something is to go ahead and do it, which is exactly what we want here.
(B) means to come before, and is the correct answer. It is unidiomatic to say “succeed TO”; the correct idiom is “succeed IN.” It is also odd to say “progress TO do something.”

11. The key to answering this question correctly is “enduring legacy.” We don’t want a merely positive outcome; we want the reason Sequoyah’s innovations were highly momentous for his people. (A) is one such answer. That’s great that many elders learned the language. But it doesn’t really tell us the major positive effect on the Cherokees that Sequoyah’s writing system had. (B) gives us a clear reason why this innovation was so important: it helped connect the Cherokee over long distances and mend the rift between East and West Cherokees. (C) just explains that it was innovative. (D) makes an inapt comparison with modern day computers. (B) is the answer.

# SAT Reading Test

## Intro to SAT Reading

The SAT Reading test is quite different than it used to be. Gone are the sentence completion questions that quizzed students on tough vocabulary. Now, it's all about the passages. In other words, it's all about reading comprehension. (Okay, so there's a little vocab snuck in there too; we'll talk about that in a bit.)

**What to Know:**

- The SAT Reading test is 65 minutes long.
- It has four passages, plus one pair of passages (so five parts total). Each passage is 500-750 words long (the paired passage has two parts that add up to 500-750 words).
- It has 52 questions (10-11 questions per passage).
- It's all multiple choice.
- One passage will be about U.S. and World Literature, two passages (or one passage and one pair) will be about History/Social Studies, two passages (or one passage and one pair) will be about Science.
- There will be one to two graphics embedded in one History/Social Studies passage and in one Science passage.
- Passage complexity ranges from ninth grade to early college.
- The score is combined with the Writing score for one "Evidence-Based Reading and Writing" score out of 800.

**What to Study:**

- Reading comprehension
- Understanding basic tables and graphs of data
- Texts from a variety of genres including contemporary and "classic" literature, science, and social studies, including one text from "U.S. Founding Documents or the Great Global Conversation." (This means things like the Declaration of Independence, or a speech by Nelson Mandela.)

**What Not to Study:**

- Esoteric vocab words (such as "esoteric"). Students with a weaker vocabulary may want to look through flashcards so that they can better understand the passages. However, the questions that specifically address the meaning of words on the new SAT primarily concern more common words with multiple meanings.

# The SAT Reading Test: Strategies

Let's start with the basics. The Reading section of the SAT requires intense focus. Students face long reading passages and will even have to compare two passages on similar topics. So before we dive into the nitty-gritty of the passages and question types on the SAT, let's talk about the big picture: the general reading comprehension strategies that are going to help students get the most out of their reading time on the test.

### 1. Read the Entire Reading Passage First

There used to be this urban myth that students could ace the Reading passages by reading the questions first and then going back to the relevant parts of the passage. Now that there are fewer line number questions on the SAT, meaning the questions aren't going to tell students exactly where to look for the answer, this strategy makes even less sense. They have to hunt for the answer or remember where they saw it. (The horror, the horror!)

Now, I'm not saying students can't still get a *few* questions right by reading the questions first, but if they skip the passage altogether, they are likely to miss many (many!) questions that relate to the general ideas in the passages. They are also likely to spend more time trying to choose between two answers, because they simply don't have the context that they can only get by reading the passage.

So let's say it loud and clear: **Always read the entire passage first.**

### 2. Get the Big Picture

Doing well on SAT Reading passages requires understanding what the passage is about. If a student finds that each word of the passage is going in one ear and out the other as he or she sits there, hoping to reach the end of a torturous passage, it's actually harmful in more than one way. **It is not about getting to the end of the passage; it is about understanding the passage.** So encourage students pause frequently as they read and digest what they've just learned.

### 3. Watch Out for the Swamp!

Some people take the idea of understanding the passage to the other extreme. "I have to understand every detail," they tell themselves. But beware: many of these passages are constructed in such a way that there is a lot of dense, difficult to understand material buried in the middle. Students often get pulled into this swamp of words and complex ideas, believing that to answer the questions, they have to understand the most complex part of the passage.

This is often not the case, as the questions typically focus on easier parts of the passage—or at least, not exclusively on understanding two difficult sentences back-to-back. **The key is understanding the topic sentences of the paragraphs, and feeling comfortable glossing over the tough stuff—instead of getting stuck in a swamp of words.**

### 4. Take Snapshots

No, we're not talking about taking pictures with a phone! The word "snapshots" refers to those little mental summaries you make in your head as you read. Each paragraph is a unit of information—important information that you should quickly summarize while you read.

For instance, when students have finished the first paragraph, they should think something along the lines of, "Okay, that was about a couple of reasons radio telescopes are important in hunting for aliens. Hmm…this paragraph just talks about *one* of those reasons, which is that…."

These summaries should not take long—only about five seconds or so. For those who aren't fast readers, or aren't used to summarizing stuff in their heads, they can also write mini-paragraph summaries in the margins (though we recommend building up to the point where students are comfortable making mental snapshots of each paragraph).

And remember: just focus on the big ideas. *Don't let students get buried in the swamp*! It will disrupt their ability to understand the main ideas of the passage.

### 5. Get Really Excited

I know. This sounds weird. After all, students are dealing with SAT passages that often seemed intentionally designed to torture; what the %$@ is there to get excited about?!

But that's the point: our natural tendency upon starting a boring reading passage is to fall asleep—or at least get bored. By convincing (or, let's face it, fooling) themselves into believing that what they are about to read is fun and entertaining—and thus boosting their pulses ever so slightly—they'll be far more alert as they read.

By combining all the elements above, students will be far more prepared for those sneaky questions and all those carefully placed, temptingly wrong answer choices. The key when applying these techniques is patient practice. No one is going to

automatically start taking real clean “snapshots” as they excitedly make their way through a passage about the dispute regarding Linnaeus’s taxonomic contribution to natural science. But with practice? Hey, it just might happen.

As with the writing section, the below information can be shared directly with your students, or used as a refresher as you prepare for your own SAT prep class!

## Active Reading

Read the following passage and then we'll talk:

*Once American men returned from the WWII battlefields, they quickly displaced the women who had temporarily filled jobs otherwise reserved for men. With most women reverting to their domestic roles, the dramatic increase in the number of infants born is perhaps not too surprising. Yet, such factors alone cannot explain the increase in the number of births from 1946-1951. Murray suggests that both women and men's perspectives changed, mostly because of America's success in the war. This optimism, in part, fueled the rapid growth in population. However, many argue that women, in returning to the home, were able to focus on raising a family, regardless of their levels of optimism.*

Oh, it's you again. Welcome back! Without looking at the passage above (you might want to put your hand over the passage, or scroll down a bit to hide it), tell me what you just read.

You're likely to pause for a minute and try to grab onto one of the words or phrases floating around in your head ("women," "jobs," "number of infants") and then formulate a statement like: "It was about women in America and how they had more kids." Your attention likely waned after the first couple of sentences and might have even derailed by the time you got to the name "Murray" (you might not even remember reading that name).

### Passive Reading

Besides coming up with some vague generalities, you probably had difficulty formulating anything coherent and thorough when summarizing the passage. A big reason for this is your brain was in passive mode: it was stringing words together. Once word was piled upon word, you got more confused--and ended up wasting precious minutes doing so.

But don't worry. You are not alone. 99% of your fellow SAT test-takers will probably have a very similar response. You are also not alone if, instead of stopping and thinking about what you read, you kept plowing forward in the mistaken notion that if you got to the end, the passage would suddenly all make sense.

The thing is, the passages on the SAT are written in such a way that after the first couple of lines or paragraphs, your attention very well might wander off to daydream-land. The good news is we can use the predictability of SAT passages

to our advantage. However, to do so, we need to understand how a passage is designed.

## Active Reading

By simplifying all the major components of a passage in your head, you will easily be able to come up with what we call a "snapshot," which is a simplification of the important parts of the paragraph. By paying attention to structure words, you won't get lost in the sea of words but will be able to focus on what is important.

So let's talk about how to read actively so you're not desperately stringing words together, hoping for a miracle at the end.

## The Three Tenets of Active Reading

### 1. Notice Connections Between Paragraphs

The reading passage above is only one possible way in which a passage can unfold. You'll want to open up an SAT book (preferably the Official College Board guide) and see how the passages are organized.

Here's a typical structure for an SAT nonfiction passage. The topic is introduced, maybe with an anecdote or some general examples or statements. Evidence supporting a theory on the topic will typically follow. Or if the passage examines multiple sides of the issues, maybe the passage will present several perspectives with evidence. Then, a conclusion wraps up the issue, maybe offering some food for future thought.

(Special note for the "U.S. Founding Documents and Great Global Conversation" passage: This structure may not apply as neatly if we are looking at a famous speech or letter, but typically the author will still be introducing a concern and then supporting it with various arguments before wrapping up his or her thoughts.)

Once you can anticipate and recognize the typical structure of an SAT passage, it will be a lot easier for you to categorize the copious information the passage throws at you.

### 2. Pay Attention to "Structure Words"

"Structure words" are the glue that holds the paragraph together. But they're also more than that; they show us how the sentences are logically connected.

Here are five of the most important types of structure words. Out of these categories, the one you should pay most attention to is "contrast words."

Contrast words

*however, (al)though, still, nonetheless, at the same time, on the other hand, otherwise, but, yet, notwithstanding*

Intensifying words

*indeed, moreover, in fact*

Illustrative words

*for example, for one, to illustrate*

Cause words

*because, since, for that reason*

Effect words

*therefore, thus, hence, consequently, as a result*

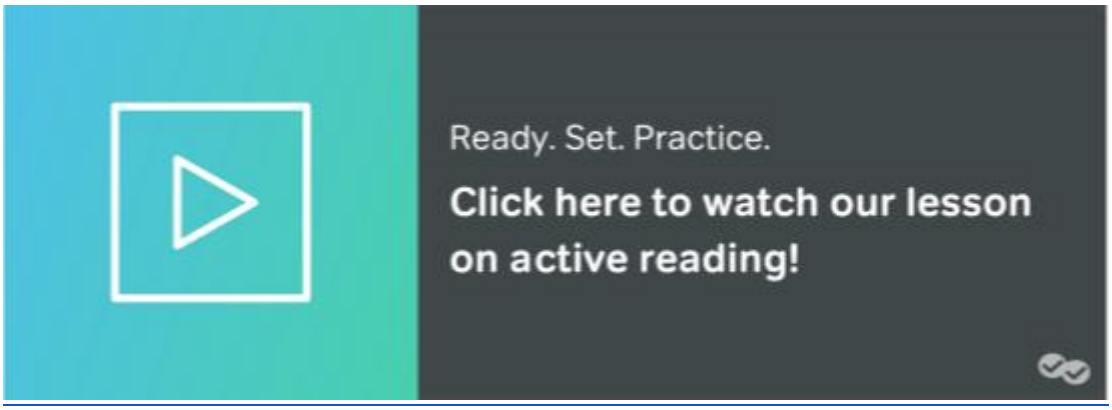
Underline structure words whenever you see them. They are incredibly helpful clues in determining the twists and turns the passage is taking.

**3. Make Connections Within Paragraphs**

It's okay to slow down for a second and even look away from the page. You'll want to digest what's being said. This is the golden pillar to active reading. Specifically, ask yourself, "What is the paragraph saying?" You may have recognized what this relates to: paragraph snapshots. You force yourself to make important connections in the paragraph, while summarizing key points in your head. Do this at the end of every paragraph (or two if they are really short).

You might balk, thinking, "Doesn't that take a long time?" Well, when you get to the end of the passage, you'll have a very good idea about what the passage is about. Consequently, you'll be able to answer the questions much more easily, saving you time (instead of having to go back and forth between possible answer choices, which typically happens when you have an imperfect understanding of the passage).

Finally, you don't need to understand every detail in every paragraph. Especially towards the end of the paragraph, details will be dense! It is best to come back to this only if the material is related to a question (which it typically is). Seeing this text for a second time, and within the context of the question, will often make it is easier to digest.




### Applying What You've Learned

It's easy to understand how active reading works. It is much harder to apply. See, our basic instinct is to try to get through the passage as quickly as possible. Therefore, if you're currently timing yourself, thinking that the only way you'll get better is to get faster, you might want to reevaluate how you approach the passage in the first place. Again, by more effectively "packaging" the information in the passage the first time around, you'll be both more efficient and more accurate when you answer the questions.

Here are few tips to help you actively read:

**1. Look Away From the Passage After Each Paragraph**

This strategy is to get your brain used to taking snapshots of the paragraph. By not looking away from the page, it is easy to become distracted by the words dancing in front of your face. Looking away, you can easily come up with a quick summary/snapshot: "It's about two different theories on the population increase after WWII. One is that people were more optimistic about starting families; the other that women who were working were able to go back home and start a family."

Saying that in your head (and you can do so using even fewer words!) takes a mere few seconds. Then, when the next paragraph deals with, say, an analysis of that theory, you'll have a much easier time following along.

**2. Take Notes**

Sometimes, it's hard to organize the clutter of thoughts pinballing through your head as you read a passage. Take shorthand notes after each paragraph.

**3. Look Away After You've Read the Passage and Jot Down the Main Idea**

The same as point #1. Except now, you'll just want to answer the question: "What was the primary purpose of the entire passage?" Putting this in your own words is a good idea, since there will likely be a question that asks you to do exactly this. Jot it down (in shorthand form) so you can confidently refer to it while answering questions.

## Active Reading in Action

Now, let's actually take the paragraph from the beginning of this section and dissect it, much the way your mind would if actively reading the passage.

*With most women reverting to their domestic role, the dramatic increase in the number of infants born is perhaps not too surprising.* ***Yet****, such factors alone cannot explain the increase in the number of births from 1946-1951. Murray suggests that both women and men's perspectives changed, mostly because of America's success in the war. This optimism, in part, fueled the rapid growth in population.* ***However****, many argue that women, in returning to the home, were able to focus on raising a family, regardless of their levels of optimism.*

The most important structure words are contrast words, because they change the direction of the paragraph. In other words, a person—it could be the author or somebody the author talks about in the passage—disagrees with something or somebody else in the passage. It is understanding the twist and turns in the paragraph that result from "contrast words" that is the key to understanding the passage. Remember, the passage is not just about imparting information; **it is about the distinctions that arise from a debate in which people take varying positions.**

In the paragraph above, notice how the first sentence introduces the topic. After that, it is straight into a contrast word. Therefore, the second sentence does not agree with the first.

1st sentence: women returning to home because of more babies

2nd sentence: other factors also account for more babies

Notice that the 2nd sentence does not completely disagree with the 1st sentence. It just **qualifies** or **limits** what that sentence says (an important distinction for those aiming for top scores to notice!)

In the next sentence, we get Murray's view. Always notice when the author brings up another point of view.

Murray's view: people became more optimistic; had more babies

Now, there is another "contrast word": "however." This signals that we are getting another point of view.

Other view: women were able to focus on raising a family

### One Final Point

Once you've noticed the relationship between sentences in a paragraph and the meaning they convey, you'll be able to deal with the SAT questions pertaining to the passage far more confidently. Indeed, you'll be able to formulate an answer in your head. And if you do have to consult the passage (you still will), you'll know where to look.

All in all, becoming an adept active reader will help you hone in on the correct answer, instead of having to fumble frantically through the mass of words that make up the answer choices.

## Pacing

We won't beat around the bush. There's a lot to read on the SAT Reading test. And if you aren't careful with balancing your time between reading and question answering, you very well might find yourself in a panic when the proctor announces there are five minutes left. So let's talk about how you can learn to pace yourself appropriately.

### Time Per Question

On average, you have one minute and fifteen seconds to answer each question on the SAT Reading test, but this includes reading time. The time you *actually* have per question will depend on exactly how long the passage is, how complex the passage is, and how fast of a reader you are.

### Time Per Passage

Since everyone reads at a different pace and some passages are denser than others, it's better to think about the approximate time you can spend per passage, rather than per question. With 65 minutes for the whole SAT Reading test, this means you have 13 minutes per passage for each of the five passages--if you pace evenly. So check your watch after each passage and make sure you are roughly on track. Don't panic if you are a little bit over; some passages might take you longer than others, but try to make up the ground as you go.

### Time to Spend Reading

The trick to conquering the SAT Reading section is finding the perfect balance between reading time and question-answering time. This is going to vary based on the individual, but in an ideal world you want to have both enough time to carefully read and understand the passage (as described above) *and* enough time to answer each question thoughtfully.

For most people, this is easier said than done. But you should definitely figure out whether you are wasting too much time trying to understand every morsel of what you read or whether you are reading too quickly and thus wasting too much time re-reading or simply getting questions wrong because you blew through the passage in a mad sprint.

To help you figure out your pattern, we suggest that once you become familiar with the test, you take at least one practice Reading section, carefully noting your time both for reading the passage and for answering questions.

As you work on this practice section, don't change your natural pace or worry about the overall time limit for the passage! Just jot down how long it took you to read the passage and then how long it took you to answer the questions for each one. If you are taking the SAT with the standard timing, you should ideally be finishing the total Reading test within 60 to 65 minutes. If you finish a section very much under that time, then you aren't taking advantage of your full time to read passages or answer questions carefully. If you finish in much more time than that, then you might need to make some decisions about increasing your reading speed, skipping some questions, or even skipping an entire passage so you can be more careful on the ones you do do. (Of course, always make sure to bubble in guesses for everything: NO PENALTY FOR INCORRECT ANSWERS on the current SAT. Happy dance!)

## A Note on SAT Reading Passages

Before we get into the individual passage types, let's talk a little more about SAT Reading passages as a whole. SAT Reading passages aren't written specifically for the test. Instead, they're taken from high school or college-level reading sources and adapted to make them around the 700 words or so that the SAT likes. Of course, that means that test-makers have to make some pretty significant changes to the original texts—creating clear introductions and conclusions—because these books or essays weren't written with the SAT exam in mind.

Unless you're a voracious reader, there's not much chance you're going to come across a passage that you recognize (*UNLESS* it's a passage from a U.S. Founding Document that you've studied in school; then, you might get lucky). But it's rare, and no matter how much you read between now and the day of your SAT, you're not going to change your odds in any significant way.

### Key Points About SAT Reading Passages

**1. SAT Reading Passages Are Academic**

Generally, SAT readings come from books that you might read in high school or college. That makes sense. Of course, there are all sorts of different things you might study in college. So that's why the SAT makes sure you see a little bit of everything, from fiction to history to science.

If you read through an article or two from *The New Yorker*, *The Economist*, or other similar publications, you'll get a sense of the level of reading the SAT expects of you.

**2. SAT Readings Aren't Super Dense, Old, or Full of Jargon**

Even though they're academic, SAT Reading passages are supposed to be readable for people who aren't actually specialists in the field of study that the passages come from. So you won't get anything really old (e.g. Shakespeare or Kant) or highly specialized (e.g. linguistic theory from Chomsky). As long as you stay focused while reading, you'll be able to understand the information in the passage without any background knowledge.

**3. Fiction on the SAT**

There's always a literature passage on the SAT, but it's not usually the kind of thing most people have read for fun—that means no *Harry Potter*. It's more likely to be something, well, literary. The books you read in high school are a good

comparison. While you won't see *The Great Gatsby* on your SAT, since so many students read it in school, the writing is similar in complexity to the type of passages you'll see on the test.

## Passage Types

### The Literature Passage

On every SAT, there's one fiction passage from "U.S. or World Literature" (yeah, that does basically mean anything in the world, as long as it's written in English). The literature passage is always the first passage in the Reading section.

The SAT likes relatively recent fiction, but it's not unheard-of to see something older--works anywhere from the nineteenth to twenty-first century are pretty fair game. There's a wide range of time periods and writing traditions that the story might come from. There are two things you can be sure the Reading passage won't be, though: written in totally antiquated English (such as Milton's *Paradise Lost*) or taken from a young adult series (such as *Twilight.* Sorry, Bella).

Sometimes the literature passage will be the easiest reading in the entire section, and sometimes it will be the hardest. You'll usually know within the first paragraph. Sometimes you'll think the story is engaging, which is such a nice bonus. But don't get too caught up in the tale. This is the SAT, after all. Questions are coming, and we need to be ready to answer them.

Here are some tips on approaching the Literature passage:

**1. Read the Intro Information**

Before every Reading passage on the SAT, there are a couple of sentences that tell you where the text is taken from and give you a little bit of background info, if necessary. You should always read this, especially when it's a fiction passage. For one, it tells you it's fiction: that affects what your note-taking strategy will be (more on this in a moment). Besides that, it may give you some important background info on the setting and characters to help orient you. The copyright date is also an important clue regarding the era a passage was written in, which can tell you a lot about the author and his or her world.

**2. Gradually Describe Characters**

As you read, keep track of the characters you meet. There will only be a few—maybe two or three—so this shouldn't be too tough. But as you read, build up a list of descriptions of those characters. Focus on their personalities and motivations; how does the author paint them? Any adjectives you see to describe their personas are worth underlining or circling. It's

good to be thinking about the author's intentions when you're doing this. Is the author's attitude toward a character positive, negative, or neutral?

**3. Describe the Relationships Between the Characters**

You want to build up not just an image of each personality, but also a description of the relationships between them. Take careful note of how characters feel about each other or react to each other. The SAT will almost always ask you about this.

**4. Write Character Traits in Your Notes**

Jot down notes about the characters alongside the passage as you read. They don't need to be extensive. "Mary = mean-spirited; Susan = naive" will suffice. This will be a really helpful guide for when you answer questions about characters.

**5. Note the Turning Point(s)**

Pretty much every literature passage on the SAT is going to have some type of "turning point" where something happens to a character, a character remembers something happening to them, or a character has a revelation. This turning point is often crucial to understanding the point of the story, in terms of the SAT. Put a big star by the turning point when you find it. As a bonus, looking for the turning point helps keep you actively engaged in your reading.

## The Nonfiction Passages

After the Literature passage, you'll see two History/Social Studies passages and two Science passages--typically alternating. These passages should be approached a little differently than the Fiction passage. Here's what you need to know:

**1. One of the History/Social Studies passages and one of the Science passages is going to include a graphic.**

We'll talk about how to deal with questions on graphics in the next section, but for now, I would suggest **not focusing on the chart or graph at all** when you are reading until you get to the question(s) on it. The questions might be very specific or pretty general, and you never know exactly what they are going to ask. There is going to be a lot more information in the graphic than you need to answer the question, so don't waste your time until the question tells you exactly what you need to find.

**2. One of the History/Social Studies passages is going to be from a U.S. Founding Document or the Great Global Conversation.**

It's particularly important to check the author and the date on these passages, which will appear in smaller font before the passage. You may be familiar with the author ("Oh, hello there again, Dr. Martin Luther King or Harriet Tubman!") or the time period in which it was written ("Hmmm, 1775 sounds suspiciously like the start of the American Revolution"). Although the questions will never rely on outside knowledge, some familiarity with the author or situation will orient you before you begin reading so you can get more out of the passage without having to piece together the clues.

**3. Just because it's non-fiction doesn't mean the author won't have a personal perspective.**

The History/Social Studies passage may be something like a memoir; in this case, it may sound almost like a fiction passage. Or it might be a letter or a speech that is making a persuasive (and personal) argument. If it seems pretty personal, be prepared for questions that ask about the author's feelings or attitudes. You can bet there will be one or two.

**More on the History/Social Studies Passage**

There's a range of subjects that these passages can draw on, but there tends to be a heavier focus on sociology, psychology, economics, and political science than other topics. As a sampling, the official practice tests from the College Board guide have passages on the psychology of gift giving, ethical economics, public transportation, theories of education in 18th century America, the growth of cities, speeches by Virginia Woolf and Elizabeth Cady Stanton on the roles of women, and the French Revolution.

**More on the Science Passage**

Don't be too intimidated by the Science passages. Although they will often include some jargon, they are written for everyday people. However, at the same time, don't be lulled into thinking that a strong background in science is useless here. It's a lot easier to make sense of theories on the DNA double helix if you've studied them in class. If you're uncomfortable reading about science, we suggest reading some science articles written for the general public. *Scientific American, National Geographic,* or *Discover* magazines will give you a good feel for the type of passages you might encounter on the SAT.

The Science passages pull from a range of topics in the natural sciences: this means earth science, biology, chemistry, and physics. A sampling from the Official Guide includes passages about DNA, the prospect of mining in space, the effect of the Internet on our brains, ocean waves, the evolution of birds, the disappearance of honeybees, genetic modification, and sources of volcanic eruptions.

**The Takeaway**

The SAT calls most of the nonfiction passages "informational passages" because this is precisely what they do: communicate information. Your job is to distill this information into its most important elements:

1. The main idea
2. Any different theories or perspectives on the topic presented
3. The examples used to support the topic
4. The author's conclusion about this topic

If you can do this, you will be prepared for almost all of the questions that follow.

## The Paired Passage

So here's the gist: there will always be one paired passage on the SAT (two passages adding up to the typical single passage length of 500 to 750 words.) What exactly is a paired passage? Well, just as its name implies, it is a set of two passages written on a similar topic. The passages usually do not completely agree with one another, but this doesn't mean they are always on opposing sides, either. More often, the relationship between them will be more nuanced. Maybe the second passage picks up on a detail in the first and describes it further. Or maybe it provides a personal perspective on a global issue. In any case, these excerpts have been carefully chosen as passages to compare, so you can assume there are going to be several connections between them.

What's that you say? Thank you, Captain Obvious?

You're welcome.

On the paired passage, you can expect roughly four to five questions to be on both passages. The other questions will only pertain to one or the other.

### The SAT's Favorite Paired Passage Questions

Here's one of the SAT's absolute favorite questions to ask about both passages:

- **Which choice best describes the relationship between the two passages?**

Now you know, and knowing is half the battle. You can expect that almost every single paired passage is going to ask you this question or a variation of it. Sometimes the answer choices will have to do with the different perspectives of the passages (*how does each author feel about the topic?*). Sometimes they will have to do with the content or structure of the passage (*Passage 1 takes a high-level view, while Passage 2 describes one example in depth*). You should be on high alert for the relationship between the passages as you read, because you're almost guaranteed to see this question.

Other popular SAT Reading paired passage questions include:

- How would the author of Passage 1 respond to the author of Passage 2? (or vice versa)

- On which of the following points would the authors of both passages most likely agree (or disagree)?

Comparison questions might be about a detail in the passages; these tend to be the easiest, although you might have to hunt the answer down. (e.g. "Both the author of Passage 1 and Passage 2 describe pigeons as being…"), but oftentimes they are about higher level issues, so you want to be tracking the main idea of each passage and any similarities and differences between them as you read. If you do this in advance, you will be much more prepared to answer the synthesis questions that follow.

Here are another major key to mastering paired passages: **Read one passage at a time if you struggle with reading.**

Typically, questions on paired passages will appear in this order: 1. questions only on the first passage 2. questions only on the second passage 3. questions on both passages. If you are not strong on the Reading section, you can chunk your reading by tackling Passage 1 first and answering those questions and then reading Passage 2 and answering those questions before answering questions on both. This will help you retain more information and not get distracted by answer choices that appeared in the other passage.

Reading one passage at a time is also a great strategy if you are running out of time, but in this case, start with whichever passage has more questions on it.

Below you'll find an example of a paired passage to practice with. As you read, try to anticipate the comparison questions that might follow (guess what, there will be one!).

**Passage 1**

It's a pattern as old as time. Somebody makes an important scientific breakthrough, which explains a piece of the world. But then people get caught up in the excitement of this breakthrough and try to use it to explain everything. This is what's happening right now with neuroscience. The field is obviously incredibly important and exciting. From personal experience, I can tell you that you get captivated by it and sometimes go off to extremes, as if understanding the brain is the solution to understanding all thought and behavior.

This is happening at two levels. At the lowbrow level, there are the conference circuit neuro-mappers. These are people who take pretty brain-scan images and claim they can use them to predict what product somebody will buy, what party they will vote for, whether they are lying or not or whether a criminal should be held responsible for his crime.

At the highbrow end, there are scholars and theorists that some have called the "nothing buttists." Human beings are nothing but neurons, they assert. Once we understand the brain well enough, we will be able to understand behavior. We will see the chain of physical causations that determine actions. We will see that many behaviors like addiction are nothing more than brain diseases. We will see that people don't really possess free will; their actions are caused by material processes emerging directly out of nature. Neuroscience will replace psychology and other fields as the way to understand action.

These two forms of extremism are refuted by the same reality. The brain is not the mind. It is probably impossible to look at a map of brain activity and predict or even understand the emotions, reactions, hopes and desires of the mind.

**Passage 2**

Critics of fMRI cite its inability to pinpoint exact areas of the brain responsible for complex emotional states. The thinking goes that if scientists can't identify a complex state in the brain that state exists elsewhere, in some nebulous mind. But that claim is simply false. Just because a given activity or response is spread across the brain—involving many different regions rather just a single section—does not mean it is beyond understanding, or that it doesn't exist in the brain at all. It just means we need to work harder to discern its underlying principles—even if doing so entails understanding how many different regions of the brain work in tandem.

In the current backlash against brain science, it is also important to realize that neuroimaging is just one of many tools used in neuroscience. Equally important is the fact that it is widely viewed as rudimentary in its current state—the equivalent of a one-megapixel camera when we are striving to build a gigapixel camera. It seems all but certain that we will continue to understand the brain better as technology allows us to zoom in tighter, with greater precision.

But the idea that the mind is separate from the brain no longer makes sense. They are simply different ways of describing the same thing. To talk about the brain is to talk about physiology, neurons, receptors, and neurotransmitters; to talk about the mind is to talk about thoughts, ideas, beliefs, emotions, and desires. As an old and elegant phrase puts it, "The mind is what the brain does."

The worst possibility of a full-scale, reckless backlash against neuroscience, to the exclusion of the field's best work, is that it might sacrifice important insights that could reshape psychiatry and medicine. If critics are too pessimistic about what the future holds, they are right about one thing: over the past decade, neuroscience has become over-privileged as a method of examining the mind. Journalists, courts, and sometimes even scientists seem to believe that a brain scan can be more telling than a profile of an individual's behavior. Perhaps as neuroscience progresses, it is possible for objective,

physiological assessment of the brain to win out as the ultimate arbiter of truth when it comes to the mind. But that's a long way off, if it ever will be possible at all. For now, we still need fields like psychology and psychiatry, which take the mind as their starting point, rather than the brain, to complement neuroscience. The basic elements of psychology, like beliefs, desires, goals, and thoughts, will likely always play a key role in our understanding of human behavior, which is why science needs researchers who study the mind every bit as much as it needs researchers who study the brain. Our aim should not be to pick the brain over the mind, or vice versa, but to build stronger bridges between our understandings of the two.

**Practice Question**

How would the author of passage 1 regard the idea stated in passage 2 that ("Perhaps as neuroscience... the mind")?

A. With little reservation
B. With reluctant approval
C. With marked skepticism
D. With outright enthusiasm

## Your Approach for Paired Passages

To answer this question, you will not only have to read both passages, but will also need to have a good idea of what each author is talking about. Here's your plan of attack:

1. Get the big picture of both passages (as you read).
2. Understand how the passages disagree and, when it applies, how they agree (again, as you read you should be on the lookout for this).
3. Answer questions by going back to the passage, finding relevant information, and then phrasing a response based on the text.

**Explanation**

The author of Passage 1 speaks out very strongly against the notion that neuroscience will be able to tell us everything about the mind. The two are different, he believes: "The brain is not the mind" he says. In other words, he believes a brain scan will be able to tell you all about the brain, but not much about the mind or such subtle states as emotion, mood, etc. This matches up best with C), which means strong doubt. A) is incorrect because the author of Passage 1 does have

reservations that neuroscience will be able to eventually tell us everything about the mind. If you picked this one, you might have made the mistake of reading the opinion of the "nothing buttists" as the author's opinion. The "nothing buttists" believe that "neuroscience will replace psychology," but the author doesn't. B) and D) are incorrect for the same reason: the author does not "approve" of the idea that the brain will become the ultimate arbiter of truth when it comes to the mind, and he is certainly not enthusiastic about it!

If you struggled with this one, practice, practice, practice with comparing texts and finding all the similarities and differences between them. It will get easier!

## Passage Complexity

If you are at all familiar with the SAT Reading test, you probably know that the passages vary in difficulty. You might breeze through some of them and then be sweating bullets through others not having any idea what the heck the last paragraph was talking about. This is okay. This is what makes the SAT hard, and you should know that there are a lot of other students struggling along right beside you. But, if you are prepared, there can be a huge difference between you and these other freaked-out students gnawing off their pencil erasers around you, and that is, the level of panic you experience when you encounter a difficult reading passage. Knowing what to expect can help you make strategic decisions about which passages to do first.

The new SAT makes this a little easier on you since you'll face five different passages, all about the same length and all with the same number of questions. So if you struggle with Reading, you can start with the easier passages first and make sure you have the time do a solid job answering those questions.

Although you won't know in advance which passages are going to be easier or harder, you do know that the SAT has a predetermined difficulty range for these passages. **The easiest passage is going to be at about a 9th grade reading level and the hardest passage is going to be at an early college level.** The others are going to be somewhere in the middle.

You can apply one of the following strategies to quickly determine which passages you should tackle first:

1. Read the first paragraph (or first two paragraphs if the first paragraph is only a sentence or two). Particularly on non-fiction passages, the introductory paragraph should be one of the most readable paragraphs of the text, and the passages often get more dense in the middle or two-thirds of the way through. So if you read the first paragraph and think, "Whoa, this is going to be hard," chances are it is a hard passage and you can come back to it after you've knocked off some easy ones.

2. Skim through the passage quickly, reading just a few select sentences throughout. You're probably better at eyeballing passage complexity than you think you are. Just think about if your English teacher handed you a printout of excerpts from *The Three Little Pigs* and *Crime and Punishment* with the titles removed. You could probably tell at a glance which is the harder passage, right? The differences might not be so extreme on the SAT, but chances are your gut instinct after a 10-second scan might tell you which passages to tackle first.

Definitely don't waste a lot of time making decisions. If you've already read half of a passage before deciding it's difficult, this is not the time to bail. Skipping around the test reading parts of passages is not going to help you get answers on your bubble sheet, so make quick decisions and go all in.

### A Note on Passage Topics

Some students just HATE fiction. It is the WORST. Other students find themselves stifling snores when they read about science. If you have strong feelings about genre or passage topics, you may want to make some ordering decisions based on this rather than passage complexity. Remember that there will be one fiction passage, two history/social studies passages, and two science passages on every test (hint: the fiction generally comes first and the history/social studies and science passages alternate), so if you've had a bad breakup with one subject or another in the past, you might want to arrange your reading order based on personal preference rather than passage complexity.

# SAT Reading Question Types

## Command of Evidence

Ever get a graded essay back from your English teacher and it's bleeding red with passive-aggressive questions such as "Examples?" "Support?" "Evidence for this?" "How do you know?" or the backhanded compliment, "Interesting arguments, but they need support"?

Well, this is precisely what the new SAT is trying to test with its category of questions pertaining to "Command of Evidence." You'll find Command of Evidence questions throughout the SAT, but on the Reading test, they break down into three categories:

1. Questions that ask you to determine the best evidence in a passage or a pair for the answer to a previous question

2. Questions that ask you how the author of an argument uses evidence to support a claim (these are more general than the first category, but the idea is the same)

3. Questions pertaining to informational graphics

**Best Evidence Questions**

The first category should be pretty recognizable to you if you've looked at an SAT Reading test: they are the questions that ask you, "Which choice provides the best evidence for the answer to the previous question?" followed by answer choices quoting different lines from the passage.

You have two basic approaches you can employ to answer these questions:

1. If you remember where the support for that answer is in the passage, you can anticipate the answer choice, and find it in your answer choices, but be very careful! Always make sure to check every answer choice to make sure there isn't a better piece of support that you missed.

2. Find each answer choice and mark it in the passage: putting brackets around the selected line numbers is a good way of highlighting the excerpt without scribbling on the passage too much. This way, you can evaluate them all

together and make sure you pick the best answer. This second method is preferable for most students, because, well, the SAT is tricky, don't let it trick you into picking a wrong answer because you haven't seen them all.

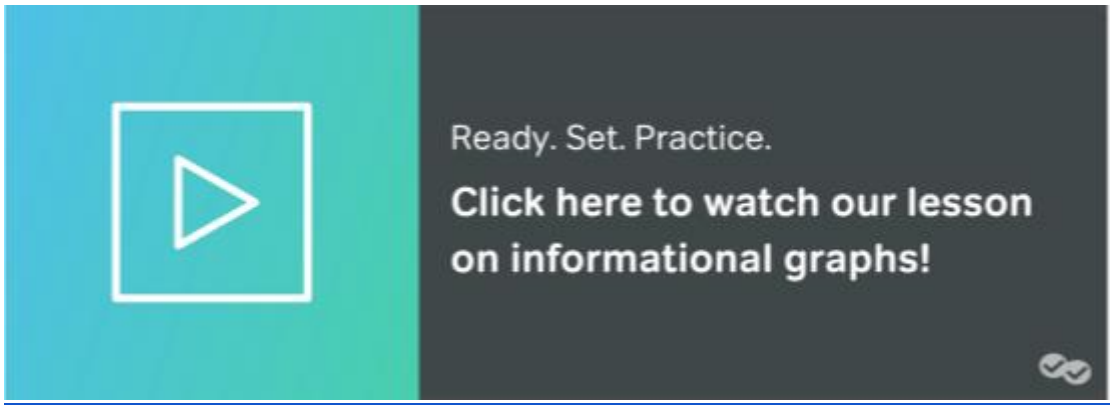
Because there is no incorrect answer penalty on the new SAT, you should always bubble in an answer for these questions, but if you are particularly weak in Reading or if you are not confident in your previous answer choice, you may want to quickly put in a guess and come back to the question if you have time. These questions can be difficult and they are not worth agonizing over.

The upside to this question type is that you might find that an evidence question will help you fix a mistake you made in the previous question, but don't count on it. The SAT is very good at finding answer choices that will match up with all the previous answer choices, so you may not even notice.

**Informational Graphics**

The new SAT is sprinkled all over the place with fun little charts and graphs, including on the Reading and Writing tests. On the Reading test, you will encounter two informational graphics. One on one of the History/Social Studies passages and one on one of the Science passages. Related questions will ask you to use the information presented on the graphics in combination with the information in the text. Maybe the chart will present a bar graph of the number of butterflies captured in specific areas, for example, and a question will ask you which claim provided in the passage could be supported by the graph. It's often not as scary as it sounds. And you'll only see a few questions like this on the test, so it's no big deal if you aren't a fan, but you should know that they will be there.

We suggest that you don't worry too much about studying these figures while you are reading; they often include far more information than you actually need to answer whatever question the test throws at you. So wait until you get to the question and then study the table or graph to find the specific answer the question requires.



## Words in Context

The old SAT tested a lot of difficult vocabulary. No more. Now the focus is on "high-utility academic words and phrases" which basically means words that are used in multiple subjects and genres and words that have multiple meanings.

There are two types of Words in Context questions. The first type requires you to correctly identify the definition of a word (remember these are typically common words with multiple meanings). The second type will ask you to identify how an author uses a word or phrase to influence the meaning, tone, or style of a passage.

Here's an example of what a word in context question looks like:

*As used in line 22, the word "contained" most nearly means to*

A. *sheltered*
B. *suppressed*
C. *enclosed*
D. *incorporated*

"Contain" is not a hard vocab word. So it's not about knowing what "contain" means; it's about what it means "in context." In different contexts, "contain" can mean different things. So we need to figure out what it means in *this* passage.

**Your strategy should be to go back to the passage and read not only the sentence the word appears in but also the sentence above and below it.** Make sure that you understand how that sentence is supposed to connect to the ones around it.

Then put a blank in the sentence where the word appears. In fact, go ahead and cross the word out. Come up with your own word or phrase that expresses what the sentence is saying. Don't worry about finding the perfect word; just get something down that communicates what the sentence is trying to communicate.

Let's try it.

*It may seem as if the Bubonic Plague is a vestige of the Middle Ages. Most high school students have read about it and its mass devastation of European lives in the fourteenth century. But although the plague may occasionally have been*

*contained, it has resurfaced periodically in various locations around the globe from the 6th century to the 21st century. It is hardly a historical relic.*

If I replace the word "contained" myself, I might come up with "stopped" or "prevented from spreading." These match up best with answer choice (B) "suppressed." We can see how, in other contexts, "contained" might mean the other answer choices: "The school contained/sheltered the students during the tornado." "The sheep were contained/enclosed within the pen." "The lesson contained/incorporated six modules on good writing." But that's not what it means here.

Try not to just start plugging in the answer choices from the very beginning. This turns on the how-it-sounds part of your brain instead of the analytical part of your brain (you can probably guess which one the SAT rewards). Only plug words in if you are totally confused and can't come up with your word.

Remember that the SAT often chooses a second (or third or fourth) definition of a word and not the one that you are most familiar with. So always go back to the passage.

Although they are far less common, a word in context question may also ask you to determine why an author chose to use a certain word to achieve a certain effect.

Here's an example:

*In line 34, the author most likely used the word "heralded" to:*

A. *echo the idea that the press release acted like a live messenger.*
B. *emphasize the global acclaim the discovery received.*
C. *imply that the announcement was fortuitous.*
D. *highlight the fanfare the press release received.*

These questions are tougher because you can't use the fill-in-the-blank technique. Rather these questions rely on an understanding of main idea and tone and are really more like analysis questions. So let's talk about those next!

### Analysis Questions

Your SAT Reading test will include many questions that look something like this:

*The primary purpose of this passage is to…*

*The author's tone towards his subject is…*

*Which choice best describes the developmental pattern of the passage?*

And in order pick the right answers for big picture questions like these ones, you need to zoom out. There are a lot of details in SAT Reading passages, of course, and not being clear on the more important ones can really throw you off. There will be a couple of wrong answers that focus too closely on specific details in the passage, which just aren't universal enough in scope.

It's pretty easy to get tricked by these types of questions, unless you have a method.

Oh, wait! We do have a method. Lucky you!

**1. Sketch the Big Picture**

If you take one thing away from this section, it should be this: take notes about the big picture while you read. In addition to keeping you focused, notes also help by giving you a zoomed out picture. You're only going to note the most important details and how they relate to each other (thinking about their function in the overall passage) so that when you look at the notes later, you won't be distracted by the little details.

**2. Zoom Out**

Imagine I have a picture of a river. I took the picture while sitting on the bank, skipping stones and eating a sandwich. What's in the picture? Water, trees, rocks, sky, moss, bugs…lots of stuff. Then I ask you what shape the river is. Is it curvy? Straight? While you might see a curve in the picture, you'd have a pretty hard time sketching the river's overall shape. Even if I gave you a whole bunch of river snapshots, determining the entire river's shape would be pretty hard.

You don't want that; you want a satellite image to see the river's shape. Sure, it won't show the bugs, the rocks, or my sandwich, but it'll show the big picture. And that's how these Primary Purpose questions work. They're asking for the main point of the passage, not the details.

**3. Make Sure You're Reading for the Main Point**

Taking the right kind of margin notes on your SAT is a skill that takes practice. You have to remember to ask yourself some questions to keep your notes focused: "What's the main idea of this paragraph?" "How does this paragraph relate to the next one?"

Practice that, and these big-picture questions will be a cinch.

**4. Be Wary of Extremes**

On questions about main idea, purpose, or tone, always be wary of answer choices that seem too extreme for the circumstances. They are almost always wrong. Jot down the author's perspective and tone at the end of each passage and you'll be much better equipped to answer these analysis questions.

### Direct Reference/Line Reference Questions

This question type will direct you to a specific part of the passage or even a specific line. Once we read the passage, we want to answer the question ourselves. That's right—do not dive straight into the answer choices thinking they will offer salvation. The answer choices are meant to trick you and corrupt your interpretation of the passage. Next thing you know, you imagine the passage is saying something completely different from your mini-narrative. Once you have an answer in your head, match it with one of the answer choices.

Let's take a look at a full-fledged example for this question type (remember to come up with your own answer first!):

*I recently dug up a photograph of myself from freshman year of college that made me smile. I have on the wrong shoes, the wrong socks, the wrong checkered shirt tucked the wrong way into the wrong slacks. I look like what I was: a boy sprung from a middlebrow burg who affected a secondhand preppiness. I look nervous. Compare that image to one from my senior-class dinner: now I am attired in a gray tweed jacket with a green plaid bow tie and a sensible button-down shirt, all purchased at the Yale Co-op. I look confident, albeit still a bit contrived.*

*In the first paragraph, the change the author observes in his former self can best be described as one from*

A. *uncertainty to despair*
B. *confidence to conformity*
C. *awkwardness to poise*
D. *genuine to phony*

**Answer and Explanation**

In the first paragraph, the author is looking at two pictures – one of himself as a freshman at Yale, the other as a senior. As a freshman he is wearing, "the wrong socks…shirt…slacks." He notes that he is nervous, aware that he doesn't fit in. In the senior photo, he is wearing—with confidence—a suit and shirt bought from the Yale store.

Answer (D), awkwardness to poise, best captures this transition. This is a tough question if you get distracted by the words "affected" and "contrived" and are tempted to answer (D) -- this is a classic SAT trap. But if you read carefully, you'll see that the author thought he was trying a bit too hard both at the beginning and the end of his college career, so the transition is not from genuine to phony. Think through your own answer first and you'll be less likely to be distracted by wrong answer choices.

## Inference Questions

Inference questions are a tricky bunch. We have to choose the answer that can best be supported by information in the passage. The key is not falling prey to those answer choices that are somewhat correct, but go a little beyond the information in the passage.

Inference questions are typically tricky in a variety of ways. Many aren't incorrect—that is, nothing in the passage directly refutes them. However, these answer choices assume too much. They cannot be completely backed up by the passage.

Let's have a look at the following challenging passage and question.

*That it means little now, to most Americans, is evidence of how strongly language drives the perception of mental struggle, both its sources and its remedies. In recent years, psychiatrists have developed a more specialized medical vocabulary to describe anxiety, the core component of neurosis, and as a result the public has gained a greater appreciation of its many dimensions. But in the process we've lost entirely the romance of neurosis, as well as its physical embodiment — a restless, grumbling, needy presence that once functioned in the collective mind as an early warning system, an inner voice that hedged against excessive optimism.*

*In today's era of exquisite confusion — political, economic and otherwise — the neurotic would be a welcome guest, nervous company for nervous days, always ready to provide doses of that most potent vaccine against gloominess: wisecracking, urbane gloominess.*

*Some of the reasons that "neurotic" has fallen out of colloquial usage are obvious. Freudian analysis lost its hold on the common consciousness, as well as in psychiatry, and some of Freud's language lost its power. And scientists working to define mental disorders began to slice neurosis into ever finer pieces, like panic disorder, social anxiety and obsessive-compulsive disorder — all evocative terms that percolated up into common usage, not to mention into online user groups, rock lyrics and TV shows.*

*According to the passage, it can be most reasonably inferred that the Freudian school of psychology*

A. *coined the term neurosis*
B. *was associated exclusively with the word neurotic*
C. *ultimately abandoned the use of word neurosis*
D. *employed the term neurosis to describe certain behavior*

**Answer and Explanation**

A: The passage says that Freud made the term "neurosis" popular, and that he used it to describe certain states. However, we do not know if Freud came up with the word.

B: The red flag is the word "exclusively." It means "only," and is almost always a stretch in an Inference Question—we typically want to go with a safe answer, meaning the answer that doesn't assume too much. To say that the Freudian school was only associated with the word "neurotic" is a stretch.

C: The term fell into disuse. The passage never says that the Freudian school itself abandoned the term.

D: This is the safe answer. It is simply saying that the Freudian school used the word "neurotic." Here these lines back up the answer: being neurotic meant something more than merely being anxious, and something other than exhibiting the hysteria or other disabling mood problems for which Freud used the term. (So this is the answer.)

# How to Improve on New SAT Reading

## Wrong Answers on SAT Reading

Although SAT Reading is more straightforward than it was in the past, that doesn't mean you don't still need to be on guard. The New SAT Reading section is in some ways even *better* at presenting tempting wrong answer choices, because many of them seem so plausible. The current SAT is all about close and careful reading, so tread cautiously when it comes to the answer choices—and always go back to the passage.

Here are some of the reasons wrong answers on the new SAT are just so darn tantalizing:

**1. They Are True Based on Information in the Passage**

Sometimes an answer choice is wrong because it doesn't actually answer the question being asked. Sure, you can find supporting text for this wrong answer choice, but since it is not answering the specific question being asked, it's not the right answer.

**2. They Sound Plausible**

Many of the answer choices will seem to be "on theme" with the main idea of the text. You may even think you remember reading a wrong answer choice in the passage. This is where careful reading comes in. You should always be going back to the text to backup your answer; you may find that the passage says something a little bit different from what you remembered, meaning this wrong answer is related, but not a precise recollection of the test.

**3. They Relate to the Passage (but Distort Its Meaning)**

Be careful! Did the passage actually say what the answer choice is saying? Or did it just talk about something similar? Or did it talk about the opposite of what the answer choice says? Again, always go back to the text and stay true to your overall understanding of the main idea and author's purpose.

**4. They Use Words and Phrases From the Passage (but Incorrectly)**

Sometimes you are going to struggle with understanding a part of the passage. If a question deals with this part of the passage, you'll often find yourself going straight for the answers in the hope that they will offer some guidance. Doing so, however, is dangerous—the SAT is waiting for you.

It will often take words that appear in the passage and throw them into an answer. But if you are not processing the entire answer choice, and are just grasping on to those familiar words, you are likely to become trapped.

**5. They Are Too Specific or Too General**

Particularly for big-picture questions, such as those asking about the main idea of the passage or a paragraph, or the purpose of a passage or section, make sure you don't pick an answer choice that only mentions part of what the entire paragraph/passage addresses or something that is far bigger than the scope of the passage.

**6. They Seem *Okay* but Not *Great***

This one is specific to the Command of Evidence questions you'll find on the new SAT, the ones where you have to pick the best lines of evidence in the text to support your answer to another question. Be careful to check all of the answer choices! You might come across an answer choice that seems to be decent support for the answer to the previous question (or at least you can rationalize that it is), but there might be a BETTER line to quote. So make sure you look at all of the options, even though it may feel tedious.

**7. They *Almost* Refer to the Right Line**

This one is also specific to the Command of Evidence questions on the new SAT. The answer choices will look something like this: A. Lines 32-35 "The witch….her prey." Sometimes you might see another answer choice that looks like this: B. Line 32 "The monster...the muffins." In this case the same line number appears in both answer choices, because their respective text share a line, and if you aren't being careful you might pick the wrong one, even though you correctly identified where the answer was. So be super careful you are looking at the right lines.

Below is a short paragraph with an SAT question following it. Your goal is to read the passage and answer the question (duh!), but, more importantly, to determine which wrong answer choices fall into which category above. Once you've done this, look at the analysis below the passage to see if you are right.

**Practice Passage**

Arvo Part's famous musical composition *Cantus in Memoriam Benjamin Britten* begins and ends in silence. After three beats of stillness, one musician rings a bell three times with the slow solemnity of a death toll. The sounds of silence and death give way to the pure voice of strings which flows along in their wake. After a sublime, sorrowful opening in A minor, the violin beckons the warmer C major scale into the pulse of the piece. The strings follow one another on a quest

for the deepest note, until finally each holds a long, steady low C, then breaks into silence. It is just one of Part's modern compositions in the classical style, and it perfectly reveals the man and his music.

**Practice Question**

The main purpose of the paragraph is to:

A. explain the purpose of Part's music.
B. describe the experience of listening to Part.
C. explain how Part's musical composition reveals his personal feelings.
D. demonstrate the importance of silence in music.

**Explanation and Analysis**

First of all, the answer is B. The paragraph describes the movements of a piece of music, focusing on the listener's subjective experience as he or she listens to the "slow solemnity of a death toll" followed by the "pure voice of strings" and so on.

Now let's talk about what makes each of the other answer choices wrong, and why they are such common wrong answers on the SAT:

A. Yes, the paragraph is about "Part's music," but go back to the text and look carefully. Is an answer ever given as to its purpose? I would put this answer choice in category 2: "sounds plausible." You have to go back to the passage and think carefully.

C. There is a phrase at the end of the paragraph that might make this one tempting: "reveals the man and his music." And there are sensory words throughout that might seem to reflect feelings: "sublime," "sorrowful" etc. But the paragraph does not say anything about Part's personal feelings. And it does not say that the feelings the music might evoke in listeners are Part's personal feelings, so be careful of inferring too much. This is a category 3 error: it is based in the passage but distorts its meaning.

D. Silence is mentioned several times, making this a tempting answer choice. But be careful! This paragraph is specifically about Part's music, not music overall. This means this wrong answer choice fits into category 5; it's too general.

When you practice SAT Reading, and review your practice tests, train yourself to look for the patterns in wrong answer choices. Doing so will help you avoid making these mistakes on the real deal.

## Reading SAT Passages Faster

Okay, so picture this: it's Saturday morning and you're taking the SAT. You're working on the Reading test, and you've got about five minutes left in the section. You think you're golden; you're just about to answer the last question on your last reading passage.

Then, after you bubble in your answer, you realize you've made a big mistake. On the next page, there's another passage. You're not sure how you didn't realize that before, but it's going to be impossible to read it and get any of the answers before time's up, right?

Maybe this isn't such a hypothetical situation for you… we've all faced moments of panic on a test when we realize the hourglass is quickly emptying out. But don't let this paralyze you; instead you can switch gears to a special strategy that can greatly improve your chances of picking up some more points on SAT reading: speed reading.

### Speed Reading for the SAT

All right: I'm not going to tell you you're going to read this section and come out a speed reading master. And I'm not going to recommend any courses, videos, or software that does promise you that, because I have a hard time believing that anybody's going to go from reading 200 words per minute to reading 500 words per minute and keep their level of comprehension.

That being said, there's something to be learned from the common speed reading wisdom. First off, don't reread. Minimize it, at least. Your goal is to get the structure and key information from the passage, not to understand every detail perfectly.

Secondly, try to see larger chunks of text at once. You should be looking at sentences—or at least significant chunks of sentences—not at individual words.

### Focus on the Right Parts of the Passage

SAT passages tend to have the main point in the first paragraph, so read that paragraph more carefully. Each paragraph is also going to have one more important idea, and that's more often than not brought up in either the first or last sentence of the paragraph.

So then, read the first paragraph (or two if they're really short) at your normal, comfortable pace. Make sure you really absorb that one.

Keep that pace for the first sentence of the next paragraph, but then speed up. If your comprehension goes down a bit, that's all right. You're on the lookout for the main ideas of each paragraph—not the details.

Once you get to the end of the paragraph, slow down again. Read that last sentence or so more carefully, looking for hints about the main point of that paragraph.

After you finish the paragraph (having only skimmed the middle of it), ask yourself questions: "What did the author want to communicate? How did it relate to other paragraphs?" and note your answers.

**Use the Questions as a Guide**

Once you have that overview understanding, move right on to the questions. You're going to do a lot of rereading as you answer them, and that's the time to pay attention to detail—especially if the question is asking you about specific lines of text.

That's why you don't want to reread while you're going through the passage the first time. You're going to see the important parts again anyway.

**Read a Lot of SAT Passages Before the Day of Your Test**

Because the SAT is standardized, there are a lot of similarities between passages. They're on similar topics, are from similar eras, and use pretty common vocabulary and typical SAT grammar. The best way you can get comfortable with that language and those topics is to get exposed.

**Stop Subvocalization**

If you are like many people, you say the words aloud in your head when you are reading. This can seriously hinder your speed. You can actually read a lot faster without the subvocalization, but once it has become a habit, it's very difficult to shake off. Try to quiet down that voice and let your eyes do the work on the page.

Follow these tips and, I dare say, reading becomes much more like a fun game. (Or you can at least tell yourself that.)

## How to Stay Focused on SAT Reading Passages

Have you ever found yourself reading the same sentence or paragraph over and over? It doesn't have to be when you're going through something as dry as an SAT reading passage; it might even happen with something you're reading for fun, like a magazine, a book, or a blog post. (Is it happening now?)

Even if we're supposed to be enjoying what we're reading, or we're trying really hard to pay attention, sometimes our eyes get stuck in what seems like an infinite loop. We look at the words, sure, but they don't mean anything. So we look at them again, and…huh?…still nothing. We've all gone through whole pages like that, reading on autopilot, then suddenly realizing that we've soaked up a whole lot of nothing in the process.

The danger of this happening on your SAT is huge, and there isn't a second to waste.

### Why SAT Reading Can Be Boring

Personally, we think reading passages on the new SAT are far more interesting than they used to be. The test has moved light years away in this sense; on the old test, it sometimes felt like the test rewarded students with a high tolerance for tedium more than anything else. Now, you might even find that you learn some cool things as you go. While this is a huge improvement, you'll probably still find yourself bored with some topics. The official areas that SAT reading passages draw from are social sciences, natural sciences, humanities, and literary fiction, which is a pretty wide net. That includes just about everything academic, excluding math. (Sorry: no Kim Kardashian or Bruno Mars.)

So how do you make yourself care? Other than reminding yourself of the importance of the SAT, of course.

### How to Stay Sharp

The best way to stay on task is to focus on taking mental snapshots as you read, or taking brief, purposeful notes if you find it hard to keep track of your mental notes. But that doesn't mean trying to commit everything you read to memory or mindlessly copying down details in the margin. You should be focusing on what the function of each paragraph is as you read through the passage. With the exception of fiction, SAT reading passages will pretty often follow a predictable pattern of introducing a topic, explaining some context or history, giving some specific details on the topic, and wrapping up with some more general thoughts on the main point. The truth is, that's most non-fiction writing in a nutshell, including the essay that you may be writing yourself a little later on.

So, as you read, you should constantly be asking yourself questions like these:

- What's the main topic going to be?
- Is this background information?
- What information in this paragraph is the most significant?
- Does this paragraph agree with the previous one?
- Will the author return to his point in paragraph 2?
- Does the conclusion have a different message than the introduction?

Constantly asking yourself why the author wrote each paragraph and how it relates to the rest of the passage is the best way to stay involved. If you keep trying to get blueprints for each passage jotted down in the margins, you'll be even more stimulated. For that reason, it's a good idea to read with a pencil in hand at all times.

# Taking Notes on SAT Reading Passages

Throughout this eBook, we've been stressing the importance of pausing and evaluating what you are reading as you go (taking "mental snapshots"). Here's a quick recap of everything you should be noticing as you read:

1. Main idea of the entire passage
2. Main idea of each paragraph
3. Author's/narrator's point of view/tone
4. Author's purpose
5. Structure (how the paragraphs connect; transition words)

### Mental Snapshots at Work

After each paragraph → stop and note its main idea.

As you go → be aware of how the author is approaching his or her topic (this will help you answer point of view and tone questions—which, trust me, you'll see). If the author seems to have a particularly strong opinion or angle on the topic, chances are there will be questions on it.

As you go → notice the structure of the passage: how does a paragraph build on a previous one? Is it developing an example? Is it offering a counter-argument? You should include this in your paragraph summaries: e.g. "Beanie Baby example to support prev. paragraph" or "argues against idea that collecting is a fad." If the author's tone is particularly strong, note it at the end, e.g. "he's angry" or "skeptical."

At the end of the passage → stop and summarize the main idea of the passage as a whole.

### Written Notes

Now, we know that's a lot to keep track of. As we mentioned earlier, if you need to take notes and work towards mental snapshots, that is totally fine. But you may find when it comes time for the test, you're still in the note-taking phase. Or maybe you find that it's difficult for you to keep track of all your mental notes when it comes to the longer Reading passages that dominate the new SAT.

If one of those scenarios is the case, it's totally okay to use the strategy of jotting down summary notes on the side. Just be careful that you don't spend all day annotating the passage--the clock is ticking! A four- to six-word summary next to each paragraph can do the trick. Remember, the only one who needs to understand it is you.

If you commit yourself to taking good notes (either in your head or on paper), you'll never again face that terrible moment when you reach the end of the passage knowing you "read" the entire thing but have no recollection of what you just *read*. That's called passive reading, and it gets you nowhere on the SAT (or in life).

### A Tip if You Are Still Finding it Impossible to Focus

Some people have a REALLY hard time keeping focused on their reading. There are so many more important thoughts in their heads. If you've tried taking mental snapshots and/or jotting down very brief summary notes (you need to try at least a few times, by the way, before you can expect this to work!), underlining as you read may help.

If you underline as you read, don't freak out about whether or not you are underlining the right things; **the very act of looking for what you should underline keeps you focused, and that is a WIN.** In that certain sense, it almost doesn't matter what you are marking up. That being said, don't underline EVERYTHING, because then you aren't doing your job. Try focusing on underlining the points where new ideas or people are introduced. This will keep you engaged, and you will get far more out of the passage than you would otherwise.

## Practice Passage

Now that you know just about everything there is to know about SAT Reading, try your hand at this sample passage. Answers are at the end, with links to video and text explanations for these questions on Magoosh SAT!

**Ethan Frome**

He hung back, and she came out alone and paused within a few yards of him. **E1** She was almost the last to leave the hall, and she stood looking uncertainly about her as if wondering why he did not show himself. **E2** Then a man's figure approached, coming so close to her that under their formless wrappings they seemed merged in one dim outline.

"Gentleman friend gone back on you? Say, Matt, that's tough! No, I wouldn't be mean enough to tell the other girls. I ain't as low-down as that." (How Frome hated his cheap banter!) "But look a here, ain't it lucky I got the old man's cutter down there waiting for us?"

Frome heard the girl's voice, gaily incredulous: "What on earth's your father's cutter doin' down there?"

"Why, waiting for me to take a ride. I got the roan colt too. I kinder knew I'd want to take a ride to-night," Eady, in his triumph, tried to put a sentimental note into his bragging voice.

**B1/F1** The girl seemed to waver, and Frome saw her twirl the end of her scarf irresolutely about her fingers. **B2/F2 C1** Not for the world would he have made a sign to her, though it seemed to him that his life hung on her next gesture. **C2**

"Hold on a minute while I unhitch the colt," Denis called to her, springing toward the shed.

**G1** She stood perfectly still, looking after him, in an attitude of tranquil expectancy torturing to the hidden watcher; Frome noticed that she no longer turned her head from side to side, as though peering through the night for another figure. **G2** She let Denis Eady lead out the horse, climb into the cutter and fling back the bearskin to make room for her at his side. Then, with a swift motion of flight, she turned about and darted up the slope toward the front of the church.

"Good-bye! Hope you'll have a lovely ride!" she called back to him over her shoulder.

**A1** Denis laughed, and gave the horse a cut that brought him quickly abreast of her retreating figure. **A2**

"Come along! Get in quick! It's as slippery as thunder on this turn," he cried, leaning over to reach out a hand to her.

She laughed back at him: "Good-night! I'm not getting in."

By this time they had passed beyond Frome's earshot and he could only follow the shadowy pantomime of their silhouettes as they continued to move along the crest of the slope above him. He saw Eady, after a moment, jump from the cutter and go toward the girl with the reins over one arm. The other he tried to slip through hers; but she eluded him nimbly, and Frome's heart, which had swung out over a black void, trembled back to safety. **D1** A moment later he heard the jingle of departing sleigh bells and discerned a figure advancing alone toward the empty expanse of snow before the church. **D2**

In the black shade of the Varnum spruces he caught up with her and she turned with a quick "Oh!"

"Think I'd forgotten you, Matt?" he asked with sheepish glee.

She answered seriously: "I thought maybe you couldn't come back for me."

"Couldn't? What on earth could stop me?"

"I knew Zeena wasn't feeling any too good to-day."

"Oh, she's in bed long ago." He paused, a question struggling in him. "Then you meant to walk home all alone?"

"Oh, I ain't afraid!" she laughed.

They stood together in the gloom of the spruces, an empty world glimmering about them wide and grey under the stars. He brought his question out.

"If you thought I hadn't come, why didn't you ride back with Denis Eady?"

"Why, where were you? How did you know? I never saw you!"

**H1** At this point, she dropped all pretense and their laughter ran together like spring rills in a thaw. Ethan had the sense of having done something arch and ingenious. **H2** To prolong the effect he groped for a dazzling phrase, and brought out, in a growl of rapture: "Come along."

**Questions**

1. Which choice best summarizes the passage?

A. Two characters are unable to reveal their true feelings for each other.
B. A rebellious character finds ways to avoid those who approach her.
C. Two characters make a pretense of not seeing each other until one of them takes the initiative.
D. A character is able to avoid an unpleasant situation

2. Ethan primarily perceives Denis Eady as

A. a slight nuisance
B. a potential obstacle
C. a worthy rival
D. an unwitting ally

3. The passage implies that Ethan is most worried that

A. Mattie will not reciprocate Eady's feelings for her.
B. Mattie will decide to go with Eady.
C. he will act too impulsively.
D. Mattie will have to walk home alone.

4. Which choice provides the best evidence to the previous question?

A. A1-A2 "Denis laughed . . . retreating figure."
B. B1-B2 "The girl . . . her fingers.
C. C1-C2 "Not for . . . next gesture."
D. D1-D2 "A moment . . . the church."

5. For most of the passage, there is tension between

A. Ethan and Denis Eady.
B. Mattie and Ethan.
C. Ethan's desire to act and his reluctance to reveal himself.

D. Mattie's desire for a means home and her desire to walk alone.

6. During the course of the passage, Ethan's predominant mood shifts from

A. apprehension to relief
B. disconsolation to ecstasy
C. optimism to pessimism
D. reflective to boisterous

7. In the last paragraph, Ethan's attitude can best be described as

A. self-congratulatory
B. oblivious
C. insincere
D. unforthcoming

8. Why does Mattie most likely not allow Denis Eady to whisk her away on his father's cutter?

A. She is hoping Ethan will approach her
B. She thinks Dennis Leady is dishonest
C. She wants to walk by herself
D. She is conservative by nature

9. Which choice provides the best evidence for the answer to the previous question?

A. E1-E2 "She was . . .show himself."
B. F1-F2 "The girl . . . her fingers."
C. G1-G2 "She stood . . .another figure."
D. H1-H2 "At . . . ingenious."

10. Mattie answers Ethan's question regarding why she did not go with Denis Eady by being

A. frank.
B. coy.
C. hostile.

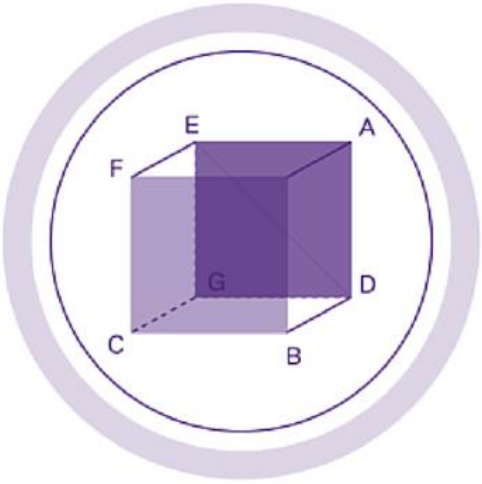
D. evasive.

**Answers: Click on the links below to see text and video explanations for each question! Or go to Magoosh SAT and sign up for a free trial for these answer explanations, more questions, and lesson videos!**

1. C
2. B
3. B
4. C
5. C
6. A
7. A
8. A
9. C
10. B

For video and text explanations for the above questions (and hundreds more), check out Magoosh SAT!

# SAT Math Test



# Intro to SAT Math

## What to Know about SAT Math

As a whole, the SAT has undergone profound changes in the past few years: four answer choices have replaced five, vocabulary exercises have been banished, the essay has almost been banished (it's optional now), and the sections are much longer. Amidst all this chatter, however, talk about how the math section has changed has been relatively muted.

While some of the changes to the math section are not as noticeable on the test as the absence of words like *platitudinous*, they are equally profound. So if you are used to the old, pre-2016 test format, then you might be interested in the following changes:

**1. The SAT has become less of a logic game/IQ test and more of a direct measure of how well students remember the math students they are learning in class.**

Going over math questions on the old SAT in class, I'd usually get a couple of "ah-ha's" from my students (so that's what it was asking for!). The test was wrapping up relatively straightforward math in tricky wording and confusing diagrams. As soon as students saw what the test was asking for or found that one little tip needed to solve the question, the test became easy.

With the new SAT, students need to recall specific concepts or risk getting the problem wrong. Once they know the concept, things fall into place. And instead of having questions that use *confusing* words, students will have questions that simply have *lots* of words.

**2. There will be more higher-level math.**

Granted, there won't be a whole lot of trigonometry, but compared to the zero trig the old test had, the couple of trig questions on test day are something your students will need to prepare for.

There will also be a lot of higher-level polynomials. Also, there are a couple of questions that can only be solved by using the quadratic formula (yes, they'll need to memorize this).

**3. There will be more—and longer—word problems.**

While the SAT was never short on word problems, the test writers have really stepped it up with the latest test, including word problems as long as *12 lines*. In one sample SAT math section, there were 11 problems in a row that had at least five

lines. Essentially, it might seem like students will be doing more reading than, um, "math-ing." But if they pay attention to the underlying math in a question, they'll be able to eliminate a lot of unnecessary words.

**4. One section will prohibit the use of a calculator.**

Back when I was a young whippersnapper, the SAT didn't allow a calculator on any part of the test. Times changed, and the SAT started to care more about the ability to understand mathematical concepts than the ability to do mental arithmetic. Well, apparently times have changed again—somewhat. Students will only be allowed to use a calculator on one of the two math sections. In the calculator math section, they'll be expected to do stuff like figure out the exact figure for a sum of money compounded semiannually for four years (the setup would look something like this: $100(1.025)^8$, in case you're curious).

The no-calculator section will (thankfully) offer up tamer specimens for mental or pencil-and-paper math. Still, it might be a good idea to start assigning mental math drills or long division practice on paper. I know, that might sound like a drag—but that's the way the test is changing.

And also…as you likely understand, knowing how to crunch basic numbers is an essential facet of life, even with a phone constantly at your fingertips. So push back against students who claim to be learning a worthless skill. If you can't convince them otherwise, know that they'll still have to be on their "number game" come test day.

A few last things: the no-calculator section is always the third section of the test; it's the shorter of the two math sections; it contains 20 questions and has a time limit of 25 minutes.

## SAT Math Concept and Section Breakdown

Unlike the previous test, in which the concepts tested varied by exam, the SAT is now very specific about the exact types of questions that students see on test day. While this knowledge might seem academic (*Why should I care? Don't they just have to get the question right?*), knowing how often a certain concept pops up will help you prioritize your students' prep time.

For example: trigonometry, one of the concepts that everybody is worried about, falls under a section called Additional Topics in Math. Since there are a few other question types that fall under Additional Topics, you'll likely seeing a grand total of two trigonometry questions. So before your students knock themselves out over SOHCAHTOA and the unit

circle,have them back away from the 600-page trig book and take a deep breath--there there are far better ways for them to spend their prep time.

**Basic Facts About the Math Section**

Time Allotted: 80 minutes

Total Questions: 58

Calculator portion: 38 questions, 55 minutes (about 1:30 minutes per question)

No-Calculator portion: 20 questions, 25 minutes (1:15 minutes per question)

**Question Types**

Multiple-choice (always with four options): **45 questions**

Student-produced response (fancy speak for "what's the answer, buddy?"): **13 questions**

| **Concept** | **# of Questions** | **Percent of the Math Test** |
|---|---|---|
| Heart of Algebra | 19 | 33% |
| Problem Solving and Data Analysis | 17 | 29% |
| Passport to Advanced Math | 16 | 28% |
| Additional Topics in Math | 6 | 10% |

Here's a high-level breakdown of each concept:

**Heart of Algebra:** This is your meat-and-potatoes algebra—the basic stuff. No exponents next to your 'x's. In other words, what we call linear equations: $4x + 1 = 7$, for example. Of course, the test won't ask students to solve basic equations like that. Instead, it'll give them really long word problems in which the solutions amount to something like $3n - 3 = 12$. And assuming that's the right equation, all they'll have to do is solve for 'n'.

**Problem Solving and Data Analysis:** This is the graph and table section: bar charts, pie graphs, tedious tables with a bunch of figures for students to sort through. There will also be a fair number of word problems that ask anything from ratios and percents to median and mode.

**Passport to Advanced Math:** This is the part most students are dreading. High-order polynomials (often nothing more than the $ax^2 + bx + c$ variety) will often be buried under a mass of verbiage. Think: a 12-line word problem that must be solved using a polynomial. But the good news? Often, students will be able to find creative ways to balance the equation and solve for 'x'.

**Additional Topics:** This is the frustratingly vague section, into which all the leftovers got thrown. In no particular order, this means geometry, coordinate geometry, and trigonometry.

In the following pages, I'll go over each section in detail as though you were the one preparing for the test. So if you're asking, "does algebra really have a heart?," you'll get the full scoop below.

## Heart of Algebra

Important stuff first: 27 of the 58 questions, or **nearly half the questions** will be "Heart of Algebra" questions.
When devising the format of the test, the College Board came up with more than a categorization of concepts. Utilitarian tags, such as "algebra fundamentals," have been invested with a poetic flair. Now we have "Heart of Algebra."

But don't be thrown off for even a beat (excuse the pun): "Heart of Algebra" simply means linear algebra.

What exactly is linear algebra, you ask? Well, anything that has an algebraic equation in which none of the powers next to a variable is higher than 1.

$$3x + 5 = 2$$

$y + 5 < -1$

This might look pretty easy. And actually, the basic computation underpinning the math *is* straightforward. However, do not think the SAT is going to give you equations like the ones above and ask you to solve for the variable. Instead (and this is where SAT math differentiates itself from the old test), the math is wrapped up in long, real-life world problems that you'll have to unwrap, i.e. read several times to figure out what is going on.

Here's an actual example from the College Board, found in the Official SAT Study Guide:

*In 2014, County X had 783 miles of paved roads. Starting 2015, the county has been building 8 miles of new paved roads each year. At this rate, if n is the number of years after 2014, which of the following functions f gives the number of miles of paved road there will be in County X? (Assume that no paved roads go out of service.)*

The answer, C) f(n) = 783 + 8n doesn't even ask you to solve an equation. Rather, you have to choose the equation that accurately models the information in the text. And that's really the essence of the SAT math test:

1) Sorting through plenty of text;
2) Understanding the concept hidden in the text;
3) Using real-life scenarios in which you often have to match a variable to a situation in the word problem;
4) Requesting little to no computation or solving for variables (at least in word problems).

How does knowing this affect your prep? Well, don't think that Heart of Algebra means you have to do algebra drills all day long. Your time is best spent doing actual SAT word problems, or word problems that capture each of the four elements listed above. You'll want to learn to think in terms of how equations can explain real-life scenarios. In other words, work on translating information into a mathematical equation.

Before we dive into some actual practice questions, it'll be a good idea to review some algebra basics.

## Combining Like Terms

In order to combine two or more terms, every term must have the same variable and the same power next to that variable. (By "combining," I mean adding or subtracting terms.)

Here are examples of terms that cannot be combined:

$x^2 + x$

$2y + x$

$m + n + n^3 + p$

Here are examples of terms that can be combined (and I've gone ahead and done just that!)

Similar variables:

$$4a + 5b + 3b + 2a = 6a + 7b$$

$$x + 2y + 3z + 4y = x + 6y + 3z$$

Similar exponents (will need to know for Passport to Advanced Math):

$x^2 + 4x^2 = 5x^2$

$x^4 + 2x^3 + 3x^4 + 5x^3 = 4x^4 + 7x^3$

## Solving Equations

To solve equations, you always want to keep a few principles in mind.

#1 – Isolate the variable.

$2x - 5 = 7$

In this equation, we want to make sure *x* is by itself. To do this, make sure all the numbers are on one side of the equal sign; the variable (assuming there is only one variable, as there is here) should be on the other side of the equal side.

#2 - What you do to one side of the equation, you have to do to the other side.

We want to make sure that the equation always "says" the same thing, even if its form changes. Therefore, we can't add or subtract something to one side of the equation without doing the same thing to the other side of the equation.

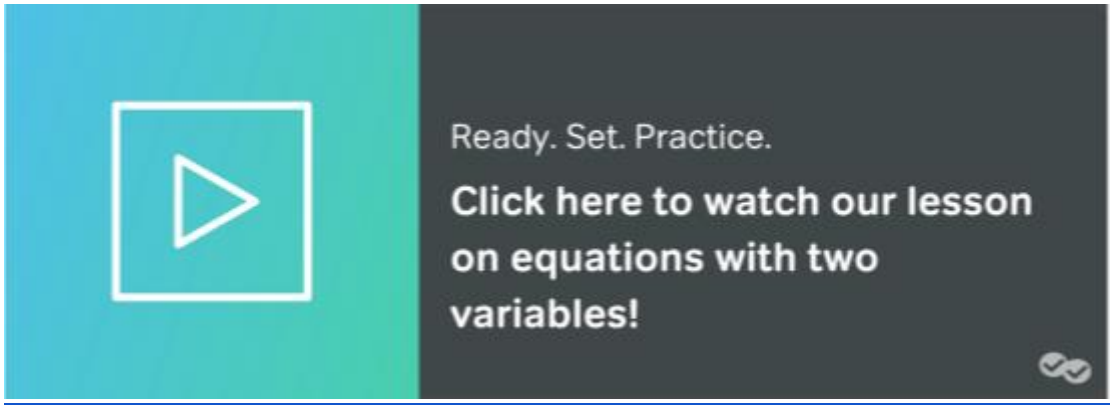
In our above problem, since we want to get rid of the number on the left-hand side, or at least "move" it to the other side so that we can isolate the variable, we have to add 5 to both sides, giving us the following:

$2x - 5 + 5 = 7 + 5$
$2x = 12$

Now, we divide both sides by 2 so that we can "isolate" the x:

$2x/2 = 12/2$
$x = 6$

With those two principles in mind, here are a few questions that capture the range of word problems you can expect from the Heart of Algebra section: linear equations, systems of linear equations, and linear functions.



**Practice Questions**

1. Steve and Brian are taking a cross-country road trip. They have agreed to split the cost of gas evenly. The price of gas is $4 per gallon. If the minivan, when traveling at a constant rate of 60 mph, is able to travel x miles on one gallon, which of the following expressions represents the dollar amount that each pays for a trip covering 150 miles in which the minivan is traveling at a constant rate of 60 mph?

A. 2(150/x)
B. 4(x/150)
C. 8(150/x)
D. 1 (x/150)

**Explanation**

The key to solving this question quickly is figuring how many gallons it will take the minivan to travel 150 miles. Is it (x/150) or (150/x)? You can do a little thought experiment. Imagine that it travels 10 miles on one gallon. How many gallons would it need to travel 150 miles? 150/10 = 15. Therefore, we want (150/x), or either answer choice A) or C). Notice that the two split the cost of gas, which is $4 per gallon. Therefore, it's like each is paying $2 per gallon, or answer A).

If you're struggling to get that, a good idea is to plug in a number for 'x' and backsolve (use the answer choices). So if we use x = 10, we get 150/10 = 15 gallons at $4, which equals $60. The two split that, meaning that each pay $30. Only A) equals 30.

2. In the systems of equations below, what is the value of x – y?

$2x - 1 = 4(y + 2)$ x + 4y = 6

A. 1/4
B. 19/4
C. 21/4
D. 5

**Explanation**

We want to make sure, when solving for x and y in an equation that has two variables, that x and y are on the same side of the equation. Then, we multiply either the top or the bottom by a number that will allow us to isolate for either 'x' or 'y'. We then solve for that variable and plug that value back into one of the two equations to find the value of the second variable.

$2x - 1 = 4y + 8$

This can be simplified to

$2x - 4y = 9$

Adding the second equation underneath we get:

$2x - 4y = 9$

$x + 4y = 6$

Adding the two equations vertically, we get

$3x + 15$

x = 5

Plugging 'x' back in:

5 + 4y = 6

4y = 1

y = 1/4

x + y = 21/4, which is (C).

3. Which of the following lines is <u>not</u> perpendicular to the line with the equation 2x + 5y = -11 ?

A. 5y = 2x + 3/2

B. y = -5/2x + 6

C. 10y – 5 = 4x

D. -5y = -2x -4

**Explanation**

Coordinate geometry, when it deals with a linear equation like the one above, is categorized as Heart of Algebra. In this question, we need to find a line that is *not* perpendicular to 2x + 5y = -11. Perpendicularity is defined as the negative reciprocal of the slope. The slope of that line, once we move things into the y = mx + b form, is

2x + 5y = -11
2x = -5y – 11
x = -5/2y – 11

Therefore the slope is -5/2. The negative reciprocal, or the slope of a line that is perpendicular to the original line, would have a slope of 2/5.

All the answer choices have a slope of 2/5 except answer choice B), which has a slope of -5/2. Therefore, answer B).

**Conclusion**

Most "Heart of Algebra" questions that you see on the first math section (remember: this will always be section 3, and will always contain 20 questions) will be more likely to give you an equation that you solve. The second math section (this will always be section 4 and will always contain 38 questions) will contain word problems like the one I referenced from the College Board above. The reason for this is that section 3 is the *no calculator* section. Solving simple algebraic equations requires very little arithmetic. Sure, you might have to subtract seven from 22. But if doing that without a calculator causes you to break out in a cold sweat, you might want to focus more on perfecting your mental math and leave algebra alone for the moment.

The main point is that much of what is challenging about "Heart of Algebra" is the word problems. Practice doing these as much as possible. They are long and therefore require lots of concentration, something that is likely to break down by the time you get to the last section. Yep—that's the one with all the long word problems.

## Passport to Advanced Math

The SAT has given us this whimsical (and slightly intimidating) title. The good news is that the math here is actually not advanced math, but rather the skills that underpin some of the more advanced stuff you'll be doing in pre-calculus. In this light, the name "passport" doesn't seem as fanciful, since in order to travel in the land of advanced math, you'll need a "passport" showing that you have the fundamentals down.

So what exactly are these skills required to approach advanced math? Well, the SAT wants you to be able to deal not just with linear equations, as you do in the Heart of Algebra section, but also with polynomials. However, we are not talking about your basic quadratics with squared variables, but rather about polynomials in which the powers can be very high, as in the following:

$256t^{16} + 81s^{27}$

$5x^4 + 6x^3 - 2cx^2 + x + 1$

That doesn't mean there won't be quadratics. But most of them will not be your garden variety, $x^2 - 2x + 1$, kind. Instead, they'll require you to use the quadratic formula (again—yes, you'll have to memorize that).

Other topics in this section include the graphs of complex polynomials. If you're starting to feel disheartened, don't! The point of the test isn't to throw ridiculously complex equations at you; it's to test your ability to recognize simple patterns in all that complexity. In other words, can you navigate around all the noise to find a relatively straightforward approach to solving the question?

For example, look at the following question:

Which of the following is equivalent to $9a^8 - 4a^4$?

A. $a^4(9a^4 - 4a)$

B. $(3a^4 - 2a^4)(3a^4 + 2a^4)$

C. $(3a^4 - 2a^2)(3a^4 + 2a^2)$

D. $a^4(3a - 2)(3a + 2)$

The key here is noticing that the form $(x – y)(x + y)$, or $x^2 – y^2$, can be applied to the original equation, since both '9' and '4' are perfect squares and the exponents are even integers. This leads us to (C).

Here are a few more practice questions to give you an idea of what to expect.

1.

$x + 4 = \sqrt{x + 6}$

What is the solution set for the above equation?

A. {–2}

B. {–2, –5}

C. {–5}

D. No solutions.

**Explanation**

To solve for 'x', we want to remove the square root sign. To do so, we have to square both sides, giving us:

$$x^2 + 8x + 16 = x + 6$$

Balancing the equation gives us:

$$x^2 + 7x + 10$$

$$(x + 5)(x + 2)$$

x = –5 and –2

But wait!

This seems like a pretty straightforward question, but here's the twist: whenever you have a square root sign over the variable on one side of the equation, watch out! Be very careful to notice if the quantity under the variable is negative when you plug the value back in. The reason is, **if you get a negative number underneath the square root sign, you do not have a valid solution.**

Another scenario in which you get an invalid 'x's solution is when one side of the equation has a square root sign and the other side of the equation—the one that does not have a square root sign—is a negative number. The reason that part of your solution will be invalid is that the square root of a negative number will never equal a negative number.

This is what is going on here, since when you plug in x = -5 into the original equation, you end up getting the following:

$$-1 = \sqrt{-1}$$

This is not valid, so therefore -5 is not a possible answer. Only -2 is, leaving us with A.

2. If g(x) = x + 5 and f(x) = 2g(x) – 1, what is f(3)?
Student-Produced Response: _____

**Explanation**

Functions—or the application of a certain "rule"—fall under "Passport to Advanced" math. These question types can take on many different varieties, and it's a great idea to practice extensively if you're not comfortable with them yet.

For this question, when you see f(3), know that the expression f(3) translates loosely to the following: wherever you see 'x' on the right side of the equals sign, place a '3'. In this case, the 'x' is inside the 'g'. So you end up getting:

$$f(3) = 2g(3) - 1$$

Since g(x) = x + 5, where you see 'x', place a 3 → g(3) = 3 + 5 = 8.

Knowing that g(3) = 8, we go back to the original equation:

$$f(x) = 2g(3) - 1 =$$
$$f(x) = 2(8) - 1 = 15, \text{ which is the answer.}$$

## Coordinate Geometry and Passport to Advanced Math

Coordinate geometry, or more colloquially "graphing," is another area that falls under Passport to Advanced math, **as long as the equation is a polynomial**. Most of the times, this will mean a parabola. Sometimes, though, you'll get a graph of some monstrous polynomial, like $y^5 + 3y^4 - 2y^2 + 1$.

The goods news is you'll probably only have to decipher the graph to figure out how many times it crosses through the x-axis or something else relatively straightforward.

It's really the parabola that is going to show up more often. **What you need to know is that parabolas are symmetrical, meaning that each side occupies the same area on both sides of either the y-axis or x-axis**.

The equation of a parabola can be defined as $f(x) = ax^2 + bx + c$ , where a, b, and c are constants (meaning they are some fixed number). Since *a* will often equal 1 (and thus not appear in the equation at all), it helps knowing good-old fashioned FOIL, as the following question shows.

What is the sum of x-intercepts of the equation $f(x) = x^2 - 6x + 8$ in the *xy*-plane?
Student-Produced Response: _____

**Explanation:**
Really all we are doing here is FOILing so that can find out the solutions for x. Those solutions are the same as an x-intercept, since when you plug either value for x back into the equation, f(x), or the y-coordinate, will equal 0.

$$x^2 - 6x + 8$$

$(x - 4)(x - 2)$

$$x = 4 \text{ and } x = 2$$

The **sum** (don't forget to check what the question's asking for!) is 6.

Sometimes, the test might ask you to find something that requires a little more knowledge of parabolas. One useful form is $y = (x - h)^2 + k$ , where a, h, and k are constants and *(h,k)* is the vertex of the parabola.

Since a polynomial usually isn't in that form, you'll often have to get it there by "completing the square," as we'll see in the next problem. To refresh your memory, to complete the square, you divide the coefficient of x by 2, then square it. This is helpful in solving quadratic equations if you just can't get them to factor! For example…

Which of the following is an equivalent form of the equation $f(x) = x^2 - 2x + 24$ in the *xy*-plane, from which the coordinates of the vertex V can be identified as constants in the equation?

A) $f(x) = (x - 1)^2 - 25$
B) $f(x) = (x - 6)(x + 2)$
C) $f(x) = (x + 6)(x - 2)$
D) $f(x) = x(x - 2) - 24$

**Explanation**

It helps to know the following equation for a parabola: $(x - h)^2 + k, where\ (h, k)\ is\ the\ vertex.$

Getting the equation into the form above will help us determine the vertex. First, we need to complete the square, because $x^2 - 2x - 24$ does not lend itself to the $(x - h)^2$ format.

$$x^2 - 2x + 1 - 24 - 1$$

Notice how the two '1's cancel each other, thereby leaving us with the original equation. Why did we even put the '1s' in the first place? Well $x^2 - 2x + 1$ becomes $(x - 1)^2$. This is called completing the square, which I did by dividing the quantity that has the 'x' in it (in this case 2x) by '2' and squaring it. Whatever number results (in this case positive '1'), I take the negative value of it and stick it at the end of the equation (in this case the '-1'). So now I have:

$(x - 1)^2 - 25$

Therefore, going back to our formula for a parabola, h is equal to 1 and k is equal to -25. So the vertex is (1, -25). This question did have us write the vertex out, but asked for the way we could best identify it. That's the equation directly above.

**Conclusion to Passport to Advanced Math**

Passport to Advanced Math only includes 16 of the 58 questions spread out over the two math sections.

However, if you're already comfortable with the other math (which many are), you should spend more time focusing on studying this area. Why? Most of us are likely to get very flustered by this question type on test day, and this can affect your performance on easier question types.

To get a sense of all the different type of concepts that pop up in the Passport to Advanced Math section, check out the College Board's Official Study Guide. Take the practice tests to see the 16 questions in this section per test. If you miss a question because of conceptual misunderstanding, you'll want to go back and review the College Board's Passport to Advanced Math section, as well as this section of our eBook!

## Problem Solving and Data Analysis

Covering 29% of the concepts tested on SAT math, this problem type is the second most common on the test, after Heart of Algebra. Many of these questions will be familiar to you, especially the ones about ratio and proportion. What I've done with those more commonly studied topics (**Problem Solving**) is to provide a few practice problems, instead of spending too much time reviewing concepts. The second part, **Data and Statistics**, covers concepts that are new to the SAT, and I'll spend a little bit more time covering these concepts.

In line with real world scenarios, many SAT math problems will ask you to infer information based on a study with any number of participants. This is actually something that the SAT has never done before its current version (we'll get to this question type when we get to item #3) and is a welcome change, given that you'll be learning lots about cause and effect and inferential statistics in college.

### Ratio, Proportion, Units, and Percentage

But for now, let's talk about the first part of this section of SAT Math: Ratio, Proportion, Units, and Percentage.

This content shouldn't come as a surprise. It's probably been part of your math courses for the last five years (yep, you most likely went over this stuff, in some form, all the way back in early middle school). I'll start with ratios.

#### Ratios

A good way to think of ratios is in terms of apples and oranges. Say I have two oranges and three apples the ratio of oranges to apples is 2:3. Seems straightforward. What if I have 4 oranges and 6 apples? If you answered 4:6, that is not quite correct. You have to think of the ratio the way you would a fraction—in lowest terms. Both 4 and 6 can be divided by '2', giving you 2:3.

This highlights an important conceptual idea: **ratio is not about total number**. It is about the number of one thing to the number of another thing, reduced so that the ratio is expressed as two prime numbers.

Let's try a few practice questions.

1. Tom is selling apples and oranges. The ratio of apples to oranges in his cart is 3:2. If he has 12 oranges, how many apples does he have?

A. 2

B. 8

C. 18

D. 30

**Solution**

Again, a ratio is basically a fraction that has been reduced as much as possible. In this problem, the ratio 3:2 can be represented as 3/2. One way to solve this problem is to set up a simple equation:

$$3/2 = x/12$$

Notice that I placed the 12, the number of oranges, in the denominator. We have to make sure that the number 12 corresponds to 2, the oranges in the ratio. Solving for x, we get 18, (C).

An even quicker way is to notice that we have (6x) the oranges (from 2x, we get 12) so we just have to (6x) the apples in the ratio: 3 x 6 =18.

Now, let's try the same question, but with a spin:

2. Tom is selling apples and oranges. The ratio of apples to oranges in his cart is 3:2. If he has a total of 30 fruits, how many apples does he have?

A. 2

B. 8

C. 18

D. 30

**Solution**

This question, while essentially the same as our previous problem, is in a form that gives students a lot more trouble. The problem combines two concepts: ratio and totals. To solve, first add the ratios: we have 3:2, so the total is 5x pieces of fruit.

One way to go from there is to set up the table. Tables are great, both from a teacher's and a beginner's standpoint. In this case, I get to show you a nice, tidy way of solving the problem and you have an easy way both to conceptualize and solve the problem.

However, once you become used to tables, in the interest of time, learn to solve a ratio without one (I'll show you how to do so in a second!).

| | **Apples** | **Oranges** | **Total** |
|---|---|---|---|
| Ratio | 3 | 2 | 5 |
| M(x) | | | |
| Actual | ? | ? | 30 |

What do we multiply the total ratio by to get the actual total? (6x).
So in the middle row in the total column we can place a 6.

| | **Apples** | **Oranges** | **Total** |
|---|---|---|---|
| Ratio | 3 | 2 | 5 |
| M(x) | 6 | 6 | 6 |
| Actual | 18 | 12 | 30 |

Notice that in this case, I've chosen to use the variable (M)x, to stand for multiply. You can dispense with the M; I just didn't want anyone thinking there's this random variable x floating around.

Now we multiply the apples and oranges by 6 to get 18 and 12, respectively.

I know, I know. Take a deep breath.

Remember the faster way I mentioned? Here it is.

- Add the ratio parts (2 and 3)
- Figure out the 6x
- Multiply 3 x 6

The answer is 18, (C). Remember not to mix up apples and oranges!

One last thing about ratios. Let's say you have a ratio of 1:2. This is **not** the same thing as ½. The bottom number in a fraction is always the total, while the bottom number of a ratio is always a part. The total of a ratio is always the parts of a ratio added together. In this case, 1:2 is 1 + 2 = 3. So if I have 1 apple to 2 oranges, 1/3 of the fruits are apples and 2/3 are oranges.

If you have more than two ratios, make sure to add up all of the ratios. For instance, if the ratio of blue marbles to red marbles to green marbles is 2 : 5 : 7, blue marbles account for 5/14 of the total (2 + 5 + 7 = 14).

Got it? Here's a final question on ratios to make sure:

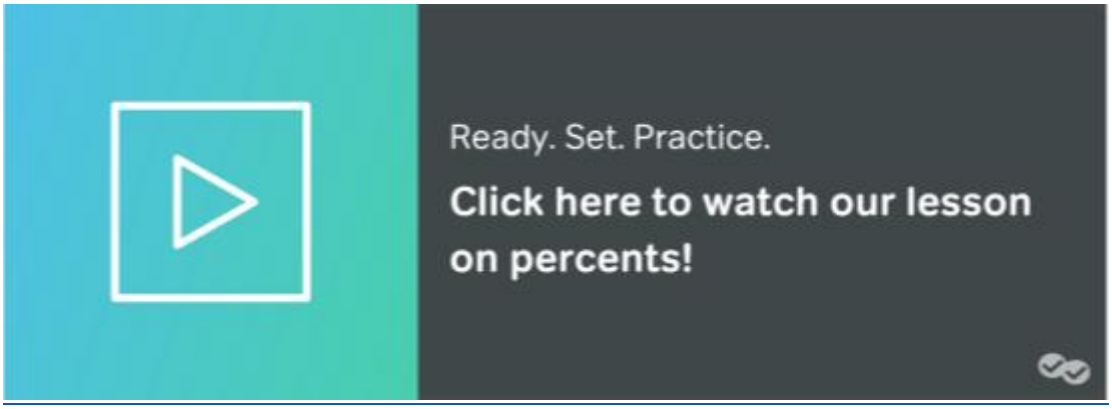
1. The ratio of shirts to shorts to pairs of shoes in Kevin's closet is 5 : 2 : 3. If Kevin owns 10 shirts, how many pairs of shoes does he have to give away so that he ends up having the same number of shorts as he does pairs of shoes?

A. 1
B. 2
C. 4
D. 5

**Explanation**

Okay, this question is slightly evil, since *shorts* sounds like *shirts* and it is easy to get the two mixed up when you're reading fast. So always pay attention, even on easier questions!

Since we know that Kevin has 10 shirts, 10 therefore corresponds to the number '5' in the ratio. So now we know that the actual number of shorts, shirts, etc. he owns is double the number in the ratio. Thus, he owns four shirts and six pairs of shoes. So he'll have to give away two pairs of shoes so that he'll have the same number of shoes as he does shorts.
Answer: (B).




**Proportions**

On some questions, you'll have to figure out the proportion between two different units.

Easy Question

Niles takes an interstate road trip over the course of two days. If he covers 610 miles in nine hours the first day and 300 miles in four hours on the second day, what is high average speed per hour?

A. 55 miles per hour
B. 65 miles per hour
C. 70 miles per hour
D. 75 miles per hour

**Explanation**

To figure out the average speed of the entire trip, divide the total distance by the total number of hours. The handy equation D = rt, where D is total distance, r is rate, and t is time, will make this easier.

D = 910, r = ?, t = 9 + 4 = 13 hours.

910 = 13r, r = 70, answer (C).

Difficult Question

A cartographer owns a square map on which one inch corresponds to 7/3 of a mile. What is the area of the map in square inches if the map covers a territory of 49 square miles?

Student Produced Response: _____

**Explanation**

We know that 7/3 of mile = one inch.

We also know that the area is 49 square miles, meaning that each side = $\sqrt{49} = 7$). To find how many inches correspond to 7 miles, we set up the following equation:

7 = 7/3x, x = 3

Here is the little twist that you want to watch out for. The question is asking **for square miles in inches**, so we have to take $3^2$ , which equals 9.

Another possible question type—one that most are familiar with and probably dread—is the percent question.

To reduce something by a certain percentage, either turn that percent into a ratio over 100 or convert the percent into a decimal by moving the point back two spaces. For example, 40% equals both 40/100 and .40.

For the following percents, convert each to a fraction and a decimal:

5% =

26% =

37.5% =

125% =

(Answers at the end of the section.)

Now, here are two practice questions.

Medium Question

1. There are 200,000 voters in district X, 60% of whom voted in the 2008 state election. In 2010 state election, the number of voters in district X increased by 20% but if only 55% voted in this election, how many total votes were cast in the 2010 state election, assuming that no voter can cast more than one vote?

A. 12,000
B. 120,000
C. 132,000
D. 176,000

Difficult Question

2. In a popular department store, a designer coat is discounted 20% off of the original price. After not selling for three months, the coat is further marked down another 20%. If the same coat sells online for 40% lower than the original department store price, how much percent less would somebody pay if they were to buy the coat directly online than if they were to buy the coat after it has been discounted twice at the department store?

A. 4%
B. 6.25%
C. 16%
D. 36%

**Explanations**

1. The # of voters who voted in 2008 election is equal to 200,000 x 60 = 120,000
In 2010, the number of overall voters increased by 20%, so 20% of 200,000 is 40,000 giving us 240,000 total voters. 55% of 240,000 gives us 132,000. Answer (C).

2. When you are not given a specific value for a percent problem, use 100 since it is easiest to increase or decrease in terms of %.

1st discount: 20% off of 100 = 80.

2nd discount: 20% off of 80 = 64.

Online, the coat sells for 40% off of the original department store price, which we assumed is 100.

Online discount: 40% of 100 = 60.

This is the tricky part. We are not comparing the price difference (which would be 4 dollars) but how much percent less 60 (online price) is than 64 (department store sale price).

Percent difference: (64 – 60)/64 = 1/16 = 6.25%. Answer B.

Fraction Conversion Exercises Answers

1) .05, 5/100 or 1/20 (you don't always have to reduce for quick calculations)

2) .26, 26/100 or 13/50

3) .375, 375/1000 or 5/8

4) 1.25, 5/4

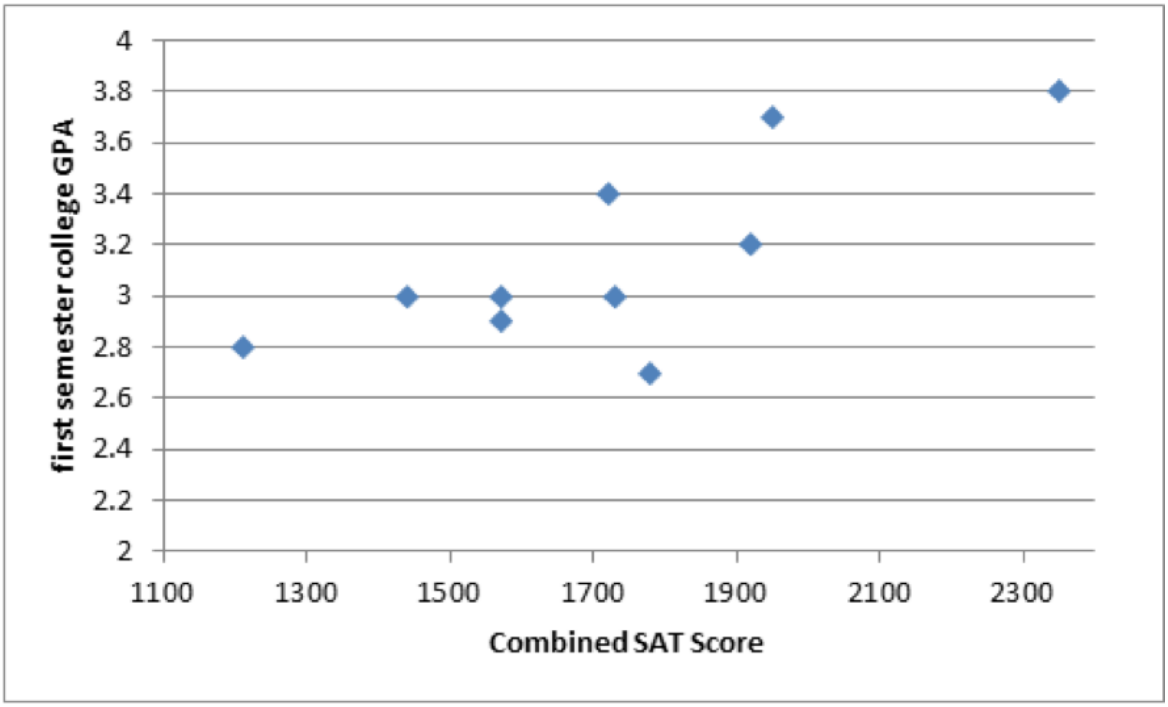
## Graphs, Tables, and Scatterplots

I'm assuming that most of you know about bar graphs and pie charts. While you might see a few of those, I'm going to spend time on graphs and tables that aren't as familiar to most students. The first is called the scatterplot.

### Scatterplots

Understanding scatterplots is important on the new SAT, since you'll likely see a question involving one. The thing is if you have no idea what a scatterplot is, you'll most likely answer the question wrong. However, just a little exposure to this seemingly daunting concept will show you that it is not too difficult to understand.

So what's a scatterplot? Well, think of it this way. When each data point (each person, each car, each company, etc.) gives you a value for two different variables, then you can graph each data point on a scatterplot. Here's an example. Suppose we survey 10 students who came from the same high school to the same college. We ask each student for their total SAT score on the old scale (M + CR + W) and their GPA from the first semester of their freshman year in college. Each student appears below as a single dot, the location of which shows that student's SAT score and first semester GPA.



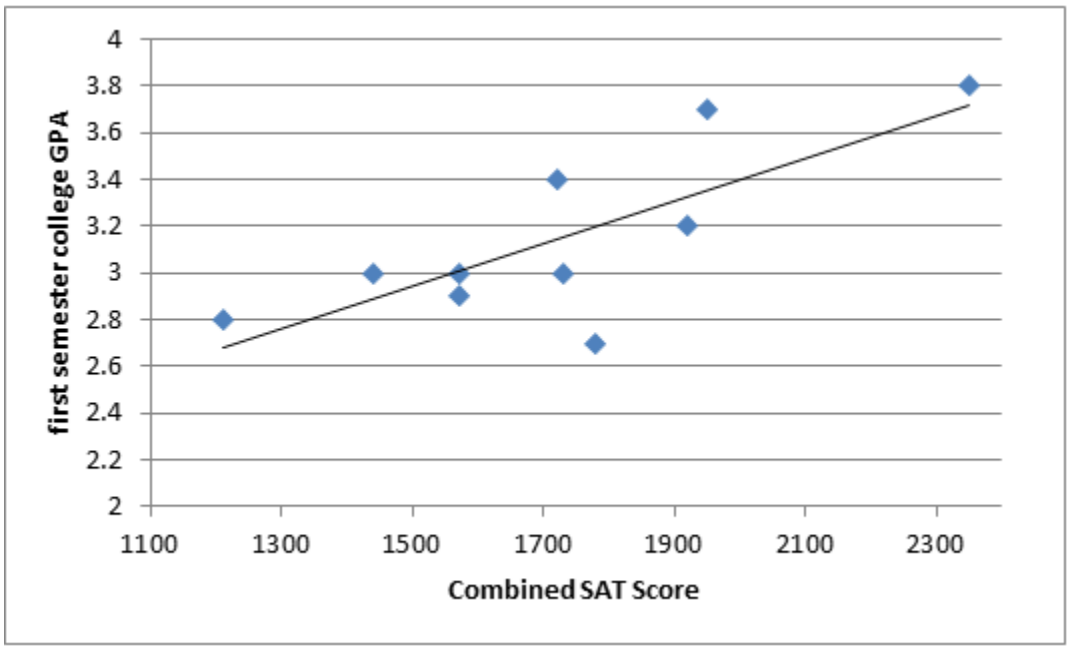

As one would expect, there's a general "upward" trend: students with higher SAT scores tended to perform better in their freshman year of college. At the same time, there's some chance variation: right in the middle, three students all scored in the 1700s on their SATs but, for whatever reasons, had different results in the first semester of their freshman year.

### A Best Fit Line

So we see there's a general "upward" pattern to this scatterplot. Suppose we wanted to make a *prediction* based on that pattern. For example, a current high school senior in this high school, planning to attend this same college, knows her SAT score and might be curious about her predicted GPA in her upcoming freshman year of college.

We can make a good guess of this by formalizing the pattern on the scatterplot: drawing what is sometimes called a "best fit" line. Excel calls this a "trendline." The official name in statistics is the "Least-Squares Regression Line," but you ing to make sense of them, because you don't need to know that for the SAT. All you need to know is that, as opposed to any other possible line, this line is in fact the "best fit" for the data points.

Here's the same graph with a best fit line:




The best fit line abstracts a pattern from the individual data points. The best fit line represents the expected relationship: if we know a new student's SAT score, then, on average, what would we predict that student's first college-semester GPA to be?

One student appears almost exactly on the best fit line (sometimes a data point or two will be on the trendline, and sometimes none will be); in this case, we can say that student's GPA is more or less what we would expect from her SAT score.

There are five dots clearly above the best fit line: these five students had higher GPAs that what we would have predicted from their SAT scores.

Four dots are below the line: those four students had first-semester GPAs lower than what we would expect, given their SAT scores.

**Notice that questions of the form "how many individuals had a higher/lower (y-value) than what we would expect from their (x-value)?" are simply asking you to count dots above or below the best fit line.**

We also need to make a distinction between people (or data points, depending on how much of a computer you feel like being) used to generate the line, and the new data points predicted by the line. In this case, we used 10 people to generate the best fit line. We have no predictions to make about those 10 people: both their SAT scores and first semester GPAs are known. They're history; things of the past.

If we are asked for the GPA from the now-completed first semester of the person who had a 1780 SAT score, we look for that dot: that's the low dot in the middle of the graph, with a value of 2.7 for the GPA (too much first-semester partying?)

A very different question is: suppose a new person, a high school senior, has a 1780 SAT score and would like to predict her first semester college GPA. To make a prediction, we look *not* at any individual point but rather at the line: the line has a y-coordinate of about 3.2, so, on average, we would predict GPA of about 3.2 for this current high school senior.

The past are the dots. The future is the line. (Also a great tagline for a film about the fall of post-Impressionists. Sorry, Georges Seurat.)

How else will the SAT have you evaluate data in the math section? Tables, for one. A table is simply an arrangement of information in grid form. But if you aren't used to this set-up, you might want to practice a few such questions.

| Time (hours) | Number of bacteria A | Number of bacteria B |
|---|---|---|
| 0 | $9 \times 10^4$ | $9 \times 10^5$ |

| | | |
|---|---|---|
| 1 | $4.5 \times 10^6$ | $8.1 \times 10^6$ |
| 2 | $2.25 \times 10^n$ | $7.29 \times 10^t$ |
| 3 | ? | ? |

The New SAT is fond of things growing, which is nice when it's bison in a natural forest and a bit ickier when it's bacteria (as in this problem). A table is a perfect way to represent this information. As you can see below, there are two questions following the table. The New SAT will often have a set of two questions that both refer to the same chart or table, as the next two questions indeed do.

Very Difficult

1. Which of the following conclusions can be drawn based on the information above?

A. t > n

B. t = n

C. After three hours, the number of bacteria A will be less than that of bacteria B.

D. The number of bacteria A will surpass the number of bacteria B closer to the two-hour mark than the three-hour mark.

Very Difficult

2. Which of the following models the number of bacteria A, N(t), after t hours?

A. N(t) = 90,000 + $10^{t+2}$

B. N(t) = 90,000 + 50t

C. N(t) = 90,000(50t)

D. N(t) = 90,000 $(50)^t$

**Answers and Explanations:**

1. When analyzing the number of bacteria A, notice how the exponent increases by ^2 (basically, it's squared) and the number that is multiplied with the base, 10, is halved. So we end up with 1.125 x 10^8 . Bacteria B, on the other hand,

adds a number to its 10's exponent every hour. Therefore, we get, n = 8 and t = 7. So we can eliminate A) and B). At the three hour mark, bacteria A will be 10^8 multiplied by something while bacteria B will only be 10^7 multiplied by something so C) is out. That leaves us with D). Notice that the number of bacteria A surpasses the number of B before 2 hours. Therefore, D) has to be correct.

2. From the explanation for #1, we know that bacteria A increases by x50 after each hour. That can be represented by 50^t. If the original is 90,000 (a nice number to pick, given the answer choices) that gives us D).

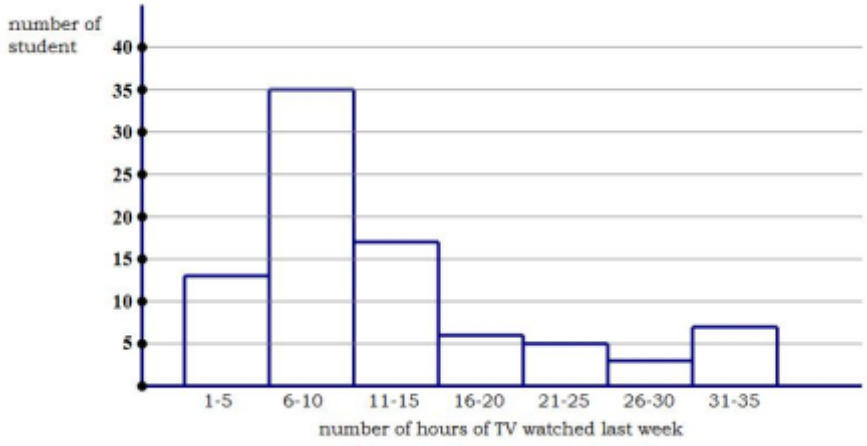
### Histograms

The following is an example of a histogram. Let's first start off with a practice problem to see if you can infer what a histogram is all about. If you struggle, read about histograms below and then take another stab at the problem.

Which of the following is true regarding the histogram below?

A. The mean number of hours of TV watched last week is greater than the median number of hours of TV watched last week.
B. The median number of hours of TV watched last week is greater than the mean number of hours of TV watched last week.
C. The number of students who watched more than 30 hours of television is greater than the number of students who watched less than 5 hours of TV.
D. The mean number of TV watched last week is greater than 20 hours.

In a survey, 86 high school students were randomly selected and asked how many hours of television they had watched in the previous week. The histogram below displays their answers.




**About Histograms:** Histograms are not simple bar charts or column charts. A histogram shows the distribution of a single quantitative variable. Here, a researcher asked each high school student, "How many hours of TV did you watch

last week?" and each high school student gave a numerical answer. After interviewing 86 students, the researcher had a list of 86 numbers. The histogram is a way to display the distribution of those 86 numbers visually.

To do this, the histogram "chunks" the values into sections that occupy equal ranges of the variable, and it tells how many numbers on the list fall into that particular chunk. For example, the leftmost column on this chart has a height of 13: this means, of the 86 students surveyed, 13 of them gave a numerical response between 1 hr and 5 hrs. Similarly, each bar tells us how many responses were in that particular range of hours of TV watched.

### The Median

The median is the middle of the list. Here, there is an even number of entries on the list (86 is an even number), so the median would be the average of the two middle terms — the average of the 43rd and 44th numbers on the list. We can tell that the first column accounts for the first 13 people on the list, and that the first two columns account for the first 13 + 35 = 48 people on the list, so by the time we got to the last person on the list in the second column, we would have already passed the 43rd and 44th entries, which means the median would be somewhere in that second column, somewhere between 6-10.

### The Mean

To calculate the mean, we would have to add up the exact values of all 86 entries on the list, and then divide that sum by 86. In a histogram, we do not have access to exact values: we only know the ranges of numbers — for example, there are seventeen entries between 11 hrs and 15 hrs, but we don't know exactly how many students said 11 hrs, how many said 12 hrs, etc. Therefore, ***it is impossible to calculate the mean from a histogram***. No one will ask you to do that. No one could reasonably expect you to do that, precisely because it is, in fact, impossible.

### Median vs. Mean

If it's impossible to calculate the mean, then how in tarnation can the SAT expect us to compare the mean to the median? Well, here we need to know a slick little bit of statistical reasoning. Consider the following two lists:

List A = {1, 2, 3, 4, 5}

median = 3 and mean = 3

List B = {1, 2, 3, 4, 100}

median = 3 and mean = 21

In changing from List A to List B, we took the last point and slid it out on the scale from x = 5 to x = 100. We made it an "**outlier**":a point that is noticeably far from the other points. **Notice that median didn't change at all.** The median doesn't care about outliers. The median simply is not affected by outliers. By, contrast, the mean changed substantially, because, unlike the median, **the mean is sensitive to outliers**.

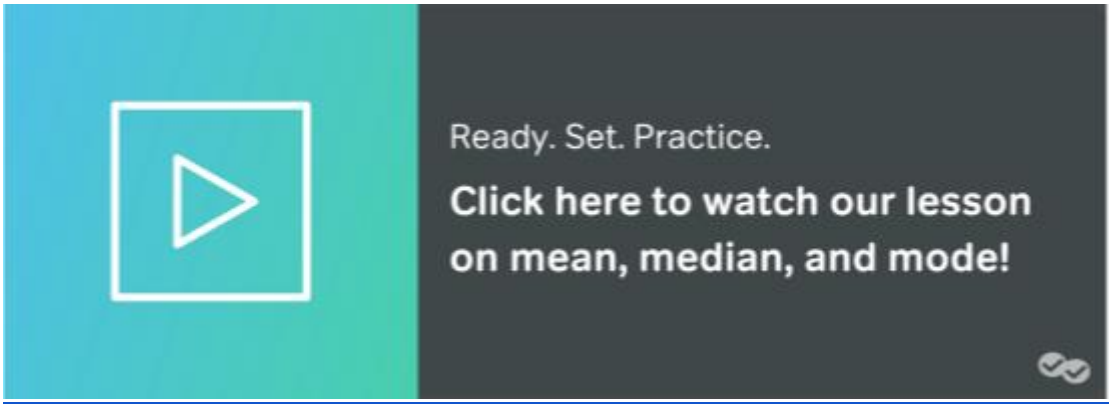
Now, consider a symmetrical distribution of numbers—it could be a perfect bell curve, or it could be any other symmetrical distribution. In any symmetrical distribution, the mean equals the median. Now, consider an asymmetrical distribution: if the outliers are yanked out to one side, then the median will stay put, but the mean will be yanked out in the same direction as the outliers. **Outliers pull the mean away from the median**.

Therefore, if you simply notice on which side the outliers lie, then you know in which direction the mean was pulled away from the median. That makes it very easy to compare the two. The comparison is purely visual, and involves absolutely no calculations of any sort. (Yes, sometimes you can "do math" simply by looking!)

**Practice Problem Answer and Explanation**

1) If you think you have to calculate both the median and the mean, then this question would be impossible, since it's impossible to calculate the mean from a histogram. If you know the trick discussed above, then you'll see that all we have to notice is that the outliers, the points most distant from the central hump, are at the upper end. They are on the "high side" of the hours scale. The median probably just sits inside that central hump, but the mean has been pulled away from the median in the direction of the outliers—that is, in the direction of the high side of the scale. That means, the mean is higher up on the hours scale than is the median. That means, the mean is greater than the median.
Answer = **A**

Notice that this solution involves zero calculations! It is 100% visual. For instance, you can eliminate D) by looking at the bars and noticing that the vast majority of students spend far less than 20 hours each week watching television.




### Subjects and Treatments

This is not an official SAT subject title, but instead it's the name we are giving to questions that deal with studies trying to determine cause and effect. That sounds pretty vague, so here is a practice question:

> A high school track coach has a new training regimen in which runners are supposed to exercise twice a week riding a stationary bike for one hour instead of doing a one-hour run twice a week. Her theory is that, by biking, students will not overly exert their running muscles, but will still exercise their cardiovascular system. To test this theory out, she had her varsity athletes (the faster runners) incorporate the biking regimen and the junior varsity athletes (the slower runners) stay with their usual training. After three weeks, the times of her varsity athletes on a 3-mile course decreased by an average of 1 minute, whereas her junior varsity athletes decreased their time on the same 3-mile course by approximately 30 seconds.

Which of the following is an appropriate conclusion?

> A. The exercise bike regimen led to the reduction of the varsity runners' time.
> B. The exercise bike regimen would have helped the junior varsity team become faster.
> C. No conclusion about cause and effect can be drawn because there might be fundamental differences between the way that varsity athletes respond to training in general and the way that junior varsity athletes respond.
> D. No conclusion about cause and effect can be drawn because junior varsity athletes might have decreased their speed on the 3-mile course by more than 30 seconds had they completed the biking regimen.

Before we answer this question, let's talk about **randomization**. The idea of randomization is the essence—the beating heart—of determining cause and effect. It helps us more reliably answer the question of whether a certain form of treatment causes a predictable outcome in subjects.

Randomization can happen at two levels. First off, when researchers select from the population in general, they have to make sure that they are not unknowingly selecting a certain type of person. Say, for instance, that I want to know what percent of Americans use Instagram. If I walk on a college campus and ask students there, I'm not taking a randomized sample of Americans (think how different my response rate would be if I decide to poll an audience of retired adults).

On the other hand, if I had everybody living in the U.S. drop their names into a gigantic hat the size of the Grand Canyon (there are many of those floating around!), and if we had a person pick a name from the hat, after the hat had been adequately shuffled, we would have a method that is both randomized and inclusive of the entire population—though in practice, this method is about as likely to happen as NASA landing a brontosaurus on Mars.

Now, if we were to draw a name from the gigantic hat and ask that person about their Instagram use, our findings would be far more representative of the general population. The more names we pulled out, the better our data would be. Therefore, this method would allow us to make generalizations about the population at large.

However, when dealing with cause and effect in a study, or what the SAT calls a "treatment," researchers need to ensure that they randomly select amongst the participants. Imagine that we wanted to test the effects on the immune system of a new caffeinated beverage. If researchers were to separate 100 subjects into under-40 and over-40, the results would not be reliable. First off, young people are known to generally have stronger immune systems. Therefore, in terms of the SAT, once researchers have randomly selected a group for a study, we need to further ensure that, once in the study, researchers randomly break the subjects into two groups. In this case, that group would be those who drink the newfangled beverage and those who must make do with a placebo, or beverage that is not caffeinated—*not* under- and over-40s.

At this point, we are likely to have a group that is both **representative of the overall population** and that **will allow us to draw reliable conclusions about cause and effect.**

Another scenario to help us segue to the practice question above is the case of treatments/trials in which the subjects are not randomly chosen. For instance, in the question about the runners, they are clearly not representative of the population

as a whole (I'm sure many people would never dare peel themselves of their couches to something as daft as run three miles).

Nonetheless, we can still determining cause and effect from a non-representative population (in this case, runners) *as long as those runners are randomly broken into two groups.* In this case, they are: exercise bike vs. usual, one-hour run. The problem with the study is the coach did not randomly assign runners to either group. Instead, she gave the slower runners one treatment. Therefore, the observed results cannot be attributed to the bike regimen; they could result from the fact that the two groups are fundamentally different. Think about it: a varsity runner is already the faster runner, one who is likely to improve more when running a three-mile course than his or her junior varsity teammate. Therefore, the answer is C).

While D) might be true, and junior varsity subjects *might* have become faster had they been in the bike group, it doesn't help us identify what was flawed about the treatment in the first place: the subjects were not randomly assigned.

**Takeaway**

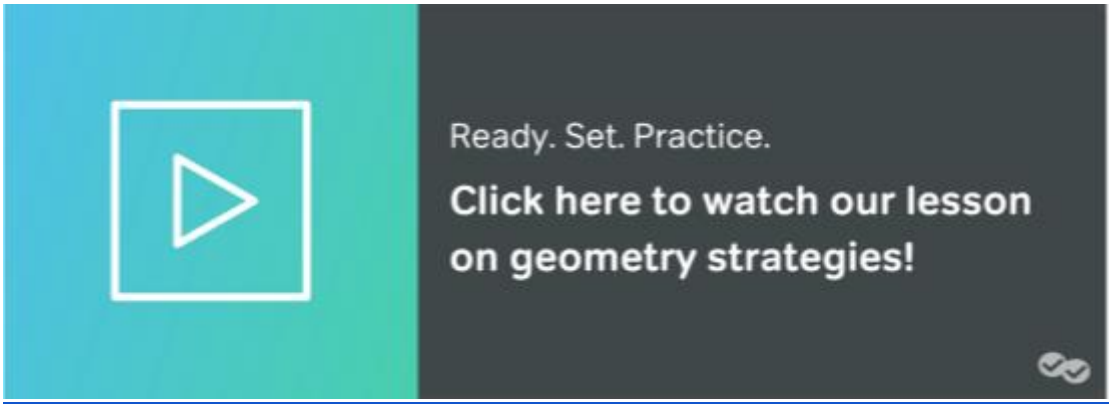
Here's a summary of the key points about SAT studies/treatments:

1) Results from a study can only be applied to the population at large (generalized) if the group of subjects was randomly selected from the population at large.

2) Once subjects have been selected, whether or not they were randomly selected, cause and effect can only be determined if the subjects were randomly assigned to groups with in the experiment/study/treatment.

# Additional Topics in Math

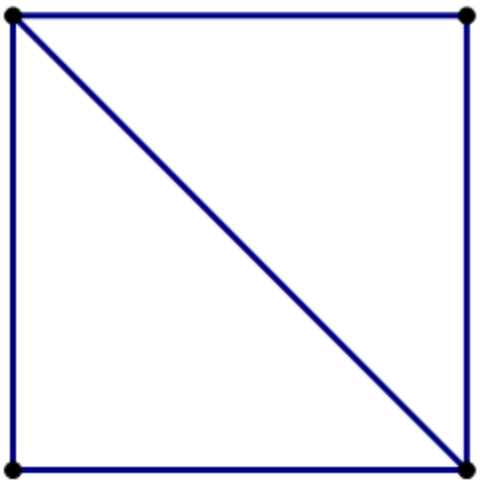
For all the colorful titles the College Board added during the SAT revamp, it suffered a lack of creativity for the rest of the concepts in SAT math. What we have left is everything from coordinate geometry to imaginary numbers unceremoniously dumped into "additional topics." I'll refrain from giving any snazzy descriptions and instead dive right into the exact "additional" topics covered.

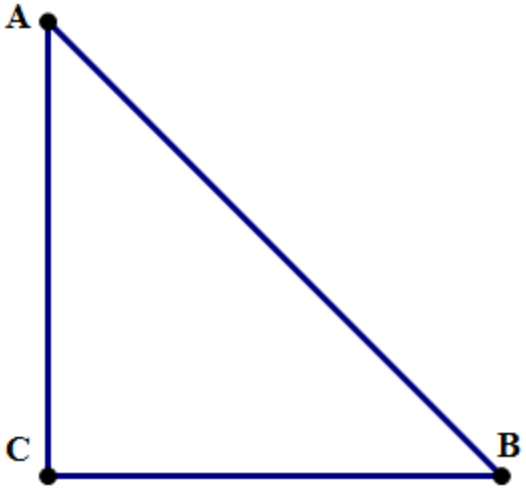



## Geometry: Triangles

### The 45-45-90 Triangle

Let's start with the square, that magically (well, mathematically) symmetrical shape. Assume the square has a side of 1. Cut the square in half along a diagonal, and look at the triangle that results.





We know ∠C = 90º, because it was an angle from the square. We know AC = BC = 1, which means the triangle is isosceles, so ∠A = ∠B = 45º. Let's call hypotenuse AB = x. By the Pythagorean Theorem,

$$(AC)^2 + (BC)^2 = (AB)^2$$
$$1 + 1 = x^2$$
$$x^2 = 2$$
$$x = \sqrt{2}$$

The sides have the ratios $1 : 1 : \sqrt{2}$ . We can scale this up simply by multiplying all three of those by any number we like: $a : a : a\sqrt{2}$

So, the three "names" for this triangle (which are useful to remember, because they summarize all its properties) are

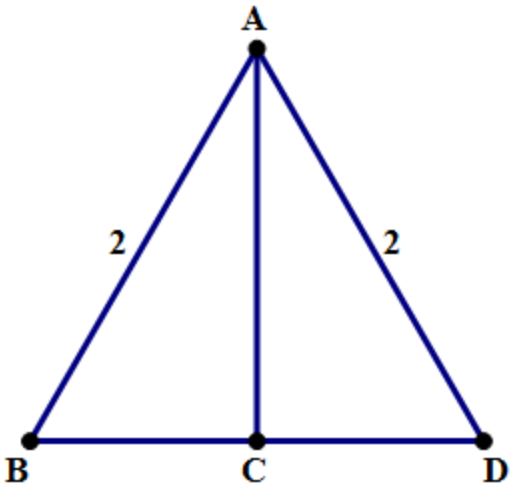
1) The Isosceles Right Triangle

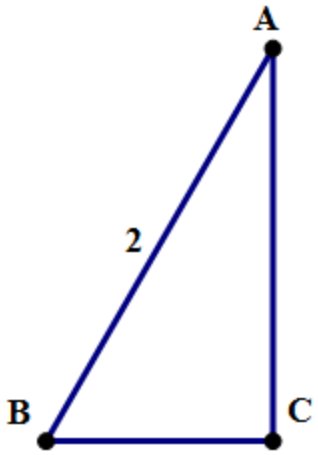
2) The 45-45-90 Triangle

3) The $1 : 1 : \sqrt{2}$ Triangle

**The 30-60-90 Triangle**

Let's start with an equilateral triangle, another magically and mathematically symmetrical shape. Of course, by itself, the equilateral triangle is not a right triangle, but **we can cut it in half and get a right triangle** (the SAT likes to have you do this). Let's assume ABD is an equilateral triangle with each side = 2. We draw a perpendicular line from A down to BD, which intersects at point C. Because of the highly symmetrical properties of the equilateral triangle, the segment AC: 1. forms a right angle at the base, 2. bisects the angle at A, and 3. bisects the base BD.




So in the triangle ABC, we know ∠B = 60º, because that's the angle it had in the original equilateral triangle (there were 180º in the whole triangle: divided by three, we know that each of the original angles was 60º). We know ∠C = 90º, because AC is perpendicular to the base (a perpendicular line forms two 90º angles). We know ∠A = 30º, because AC bisects the original 60º angle at A in the equilateral triangle. Thus, the angles are 30-60-90. We know AB = 2, because that's a side from the original equilateral triangle. We know BC = 1, because AC bisects the base BD. Call AC = x: we can find it from the Pythagorean Theorem.

$$x^2 + 1^2 = 2^2$$
$$x^2 = 4 - 1 = 3$$
$$x = \sqrt{3}$$

The sides are in the ratio of 1 : √3 : 2. This can be scaled up by multiplying the ratio by any number, which gives the general form: a : a√3 : 2a.

So, the three "names" for this triangle (which are useful to remember, because they summarize all its properties) are

1) The Half-Equilateral Triangle

2) The 30-60-90 Triangle

3) The 1 : √3 : 2 Triangle

**Geometry: Circles**

**Angles of a Circle**

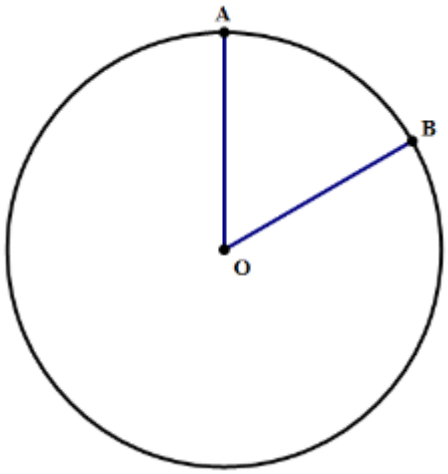
Suppose you stand at the center of a circle and turn around so that you face each and every point on the circle. You would turn all the way around an angle of 360º. In this sense, a whole circle *is* an angle of 360º. If you divided a circle equally, you could calculate the angle of each "slice." Oh, the SAT likes having you find the angles of those slices!

Here are a few division results that will help you on test day (I'm just giving the ones that come out as nice round numbers, not the ones that result in ugly decimals, as you'll most likely have your calculator for those):

360/2 = 180
360/3 = 120
360/4 = 90
360/5 = 72
360/6 = 60
360/8 = 45
360/9 = 40
360/10 = 36
360/12 = 30

**Arcs and Arclength**

Suppose we look at one of those "slices" of a circle, like a slice of pizza.




The curved line from A to B, a part of the circle itself, is called an **arc**. This corresponds to the crust of the pizza.

We can talk about the size of an arc in one of two ways: (a) its angle, sometimes called "arc angle" or "**arc measure,**" and (b), its length, called **arclength**. The angle of the arc, its arc measure, is just the same as the angle at the center of the circle. Here ∠AOB = 60°, so the measure of arc AB is 60°.

We find the arclength by setting up a proportion of part-to-whole. The angle is part of the whole angle of a circle, 360°. The arclength is part of the length all the way around, i.e. the circumference. Therefore:

$$\frac{\text{part}}{\text{whole}} = \frac{\text{angle}}{360°} = \frac{\text{arclength}}{2\pi r}$$

Let's say the radius is r = 12. Then the circumference is c = 24π . Since the angle is 60°, the ratio on the left side, angle/360, becomes 1/6. Call the arclength x.

$$1/6 = x/24\pi$$

Cross-multiply:

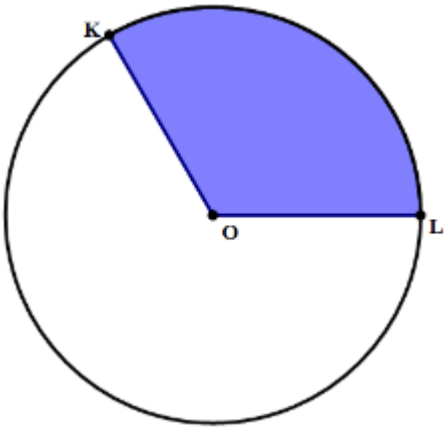
$$24\pi = 6x$$

$$4\pi = x = \text{arclength}$$

In other words, since the 60° angle is one-sixth of the full circle (360°), the arclength is one-sixth of the circumference.

Ready to try your hand at it? Here's a practice question.

**Practice Question**




1) In the shaded region above, ∠KOL = 120°, and the area of the entire circle is 144π. The perimeter of the shaded region is

A. $12 + 8\pi$

B. $12 + 16\pi$

C. $24 + 8\pi$

D. $24 + 16\pi$

**Practice Question Explanation**

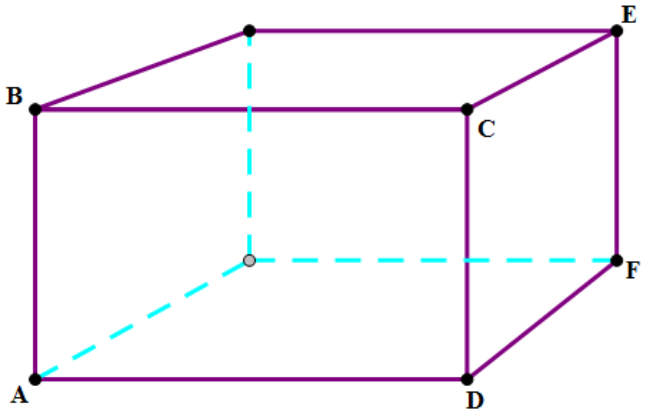
1) The area, 144π , is equal to $\pi r^2$, meaning that r = 12. This means KO = 12 and OL = 12, so those two sides together are 24. The remaining side is arc KL. The whole circumference is $c = 2\pi r = 24\pi$. The angle of 120° is 1/3 of a circle, so the arclength is 1/3 of the circumference. This means, arclength = 8π , and therefore the entire perimeter is 24 + 8π. Answer = **C**.

## Geometry: Rectangular Solids

Also known as boxes and bricks, these are pretty straightforward. Let's say a solid has length L, width W, and height H. The volume is V = LWH. The surface area is a little trickier: the solid has two faces that are L x W, two that are L x H, and two that are W x H, leading us to:

**Total Surface Area: 2LW + 2LH + 2WH**

For the special case of a cube with side s, the volume is $V = s^3$ (or one side, cubed) and the surface area simplifies to $6s^2$ What's a little subtler about these is how the three-dimensional version of the Pythagorean Theorem comes into play.




Let's say that AD = L, DF = W and AB = H. . Lengths like AC, DE, or BE are called "face diagonals," and to find them, you would just use the ordinary Pythagorean Theorem with the sides of the relevant rectangle. If we were, though, to construct segment AE, **that would go through the empty center of the solid**. In geometry, that's called a "space diagonal." You don't need to know that vocabulary, but you need to recognize this when it appears, and you need to know you can apply the three-dimensional version of the Pythagorean Theorem.

Let's say that AE has a length of D. Then $D^2 = L^2 + W^2 + H^2$

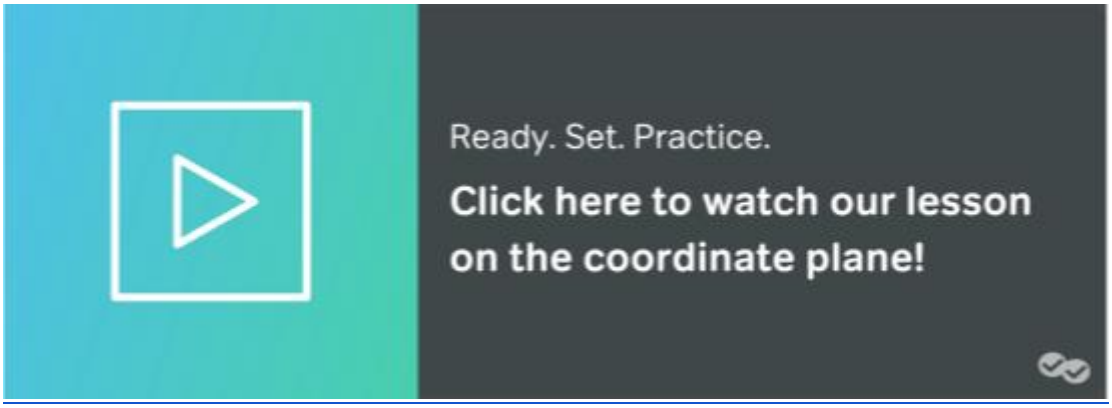
Occasionally, a math problem will ask you to use this formula to evaluate the length of a space diagonal of a rectangular solid.

### Geometry: Cylinders

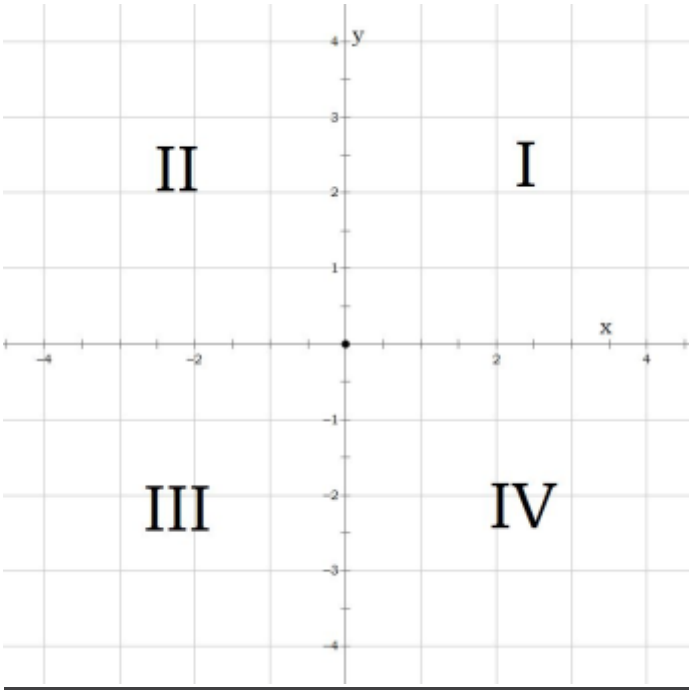
Cylinders are pretty familiar to us from everyday life: a circle at the bottom, a congruent circle directly above it, and smooth curving side (the lateral face) joining one circle to the other. The volume is **V = (area of base) x h = $\pi r^2$ x h.**

### Coordinate Geometry

Here are the high-level basics. Don't worry! Some of this should be familiar to you from math class, even if you spent half the time snoozing.


Ready. Set. Practice.
Click here to watch our lesson on the coordinate plane!

**Quadrants**




The quadrants begin with I, where both x and y are positive, and rotate counterclockwise from there. Notice:

- In Quadrant I, $x > 0$ and $y > 0$
- In Quadrant II, $x < 0$ and $y > 0$
- In Quadrant III, $x < 0$ and $y < 0$
- In Quadrant IV, $x > 0$ and $y < 0$

For many, coordinate geometry is already a daunting concept. When a question dispenses with the graph all together, students can feel even more at a loss. If you fall into this group, do not despair. Here's a helpful principle to keep in mind:

**Don't (Always) Draw the Graph!**

This advice may seem counterintuitive. After all, the problem didn't provide a graph. Wouldn't the first step be to graph the problem?

Not necessarily. Many coordinate geometry concepts *sans* graph are testing your conceptual thinking. Take the follow problem:

Which of the following lines does not contain coordinate points that are both negative?

A. $y = x + 2$

B. $3y = 4x - 2$

C. $x + y = 2$

D. $3y - 4x = 2$

**Solution:**

The slope formula is important – if the question is explicitly asking for the slope. What is often *more* important in coordinate geometry is knowing that a line with a negative slope—that is, one that descends from left to right—slopes downward. A positive slope, unsurprisingly, slopes upward.

Think of it this way: start at a negative x-coordinate (say, x = -2) of a line. If you were to place a ball on the line, would the ball roll down the line as the x-coordinates become positive? If so, the line is negative. If not, the line is positive.

For this problem, we are looking for a line that does *not* pass through the third quadrant – the quadrant in which x and y are both negative. Graph the point (-2, -2). That's in the third quadrant.

Now here's the big conceptual part: any line that slopes upwards will *always* pass through Quadrant III. Graph it if you have to, or simply imagine a line of infinite length sloping upwards. Any way you do, there will always be the Third Quadrant waiting to claim a part of your line.

Now, imagine a downward sloping line. Is it also crossing through the third quadrant? Well, move the entire line to the right. At a certain point, no part of your line will be in the Third Quadrant. As long as that line cross the y-axis at a positive value, it will *never* cross through the Third Quadrant.

Now you know that to solve this problem, you only need to find two things: a line that has a positive y-intercept and a negative slope. And that is much, *much* better than having to graph each of the equations in answer choices A – D!

Only answer (C), x + y = 2, which can be re-written as y = -x + 2, has a negative slope (-1) and positive y-intercept (+2).

## Trigonometry

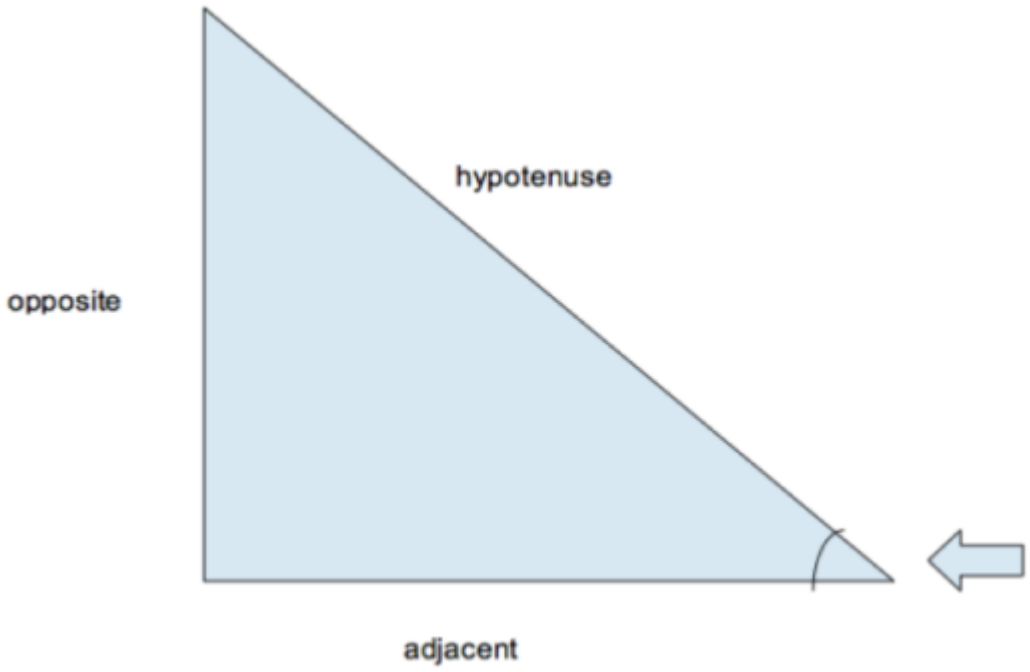
The final member in the triumvirate of "-metry," trigonometry is perhaps the most feared. Why? Well, many students might be learning it for the first time mere months, or even weeks, before they take the SAT. If you fall into this category, don't fear: the trigonometry on the test is pretty basic. In fact, if you are just learning trigonometry, that might work to your advantage; the concepts will be fresh in your head. And the questions on the exam might seem downright easy compared to what you are learning in Ms. Ficklebottom's class.

For those who have never taken trigonometry, here is what you'll need to know.

**First of All: What Is Trigonometry?**

Trigonometry is the field of math that deals with triangles–specifically, the relationships between the three sides and the three angles that make up every triangle.

Typically, the first thing you study in a trig class are right triangles:




So here's a right triangle. Let's say that we are looking at the angle the arrow is pointing to. The side next to it is the adjacent side, the side opposite it is the opposite side, and the hypotenuse is, of course, the hypotenuse.

It's important that you think about the sides this way, because the next thing you typically learn in a trig class is a mnemonic called **SOHCAHTOA**, and those As and Os and Hs stand for adjacent, opposite, and hypotenuse.

*But what do the S, C, and T stand for?*

Glad you asked! The next things you need to memorize about trig are these three terms and their abbreviations:

**Sine (sin)**
**Cosine (cos)**
**Tangent (tan)**

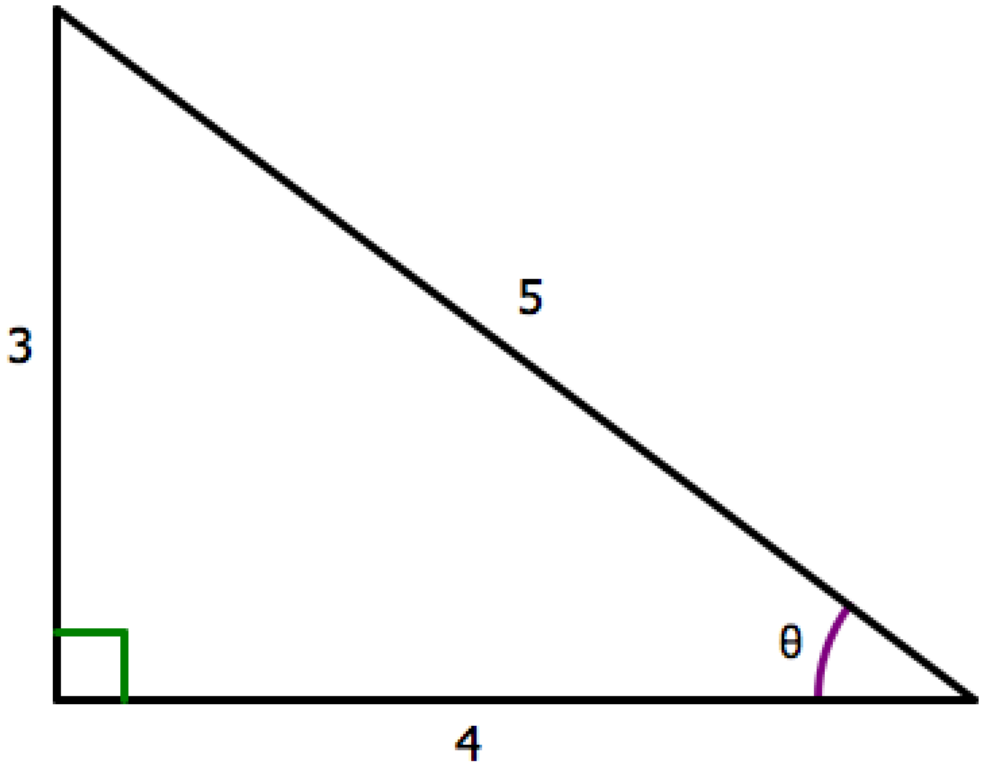
These three terms are used to designate the ratio of a pair of sides in a triangle.

So here is where **SOHCAHTOA** comes in. The mnemonic helps you remember which ratio is which:

**sin($\theta$) = opposite/hypotenuse**
**cos($\theta$) = adjacent/hypotenuse**
**tan($\theta$) = opposite/adjacent**

I suggest anytime you see a right triangle with trig terms on the SAT that you write **SOHCAHTOA** next to the problem, because it's very easy to accidentally use the wrong ratio.

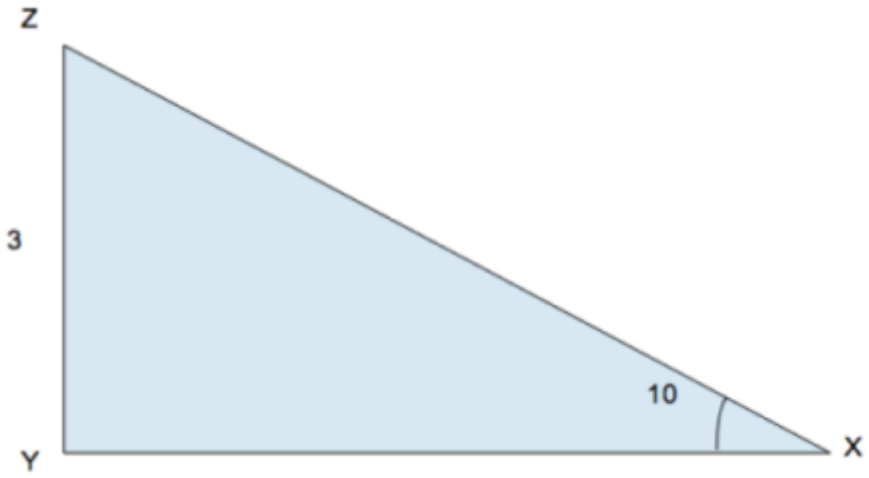
**Example 1:**
What is the sin($\theta$)?




Knowing SOHCAHTOA, you can see that that it is opposite/hypotenuse, 3/5 . Easy as that!

**Example 2:**

What is the length of XZ?



Knowing SOHCAHTOA means that if we are given a right triangle with one known length and one known acute angle (*not the right angle*), we can always find the other two lengths.

In this case, we can use sine to find the length of the hypotenuse.

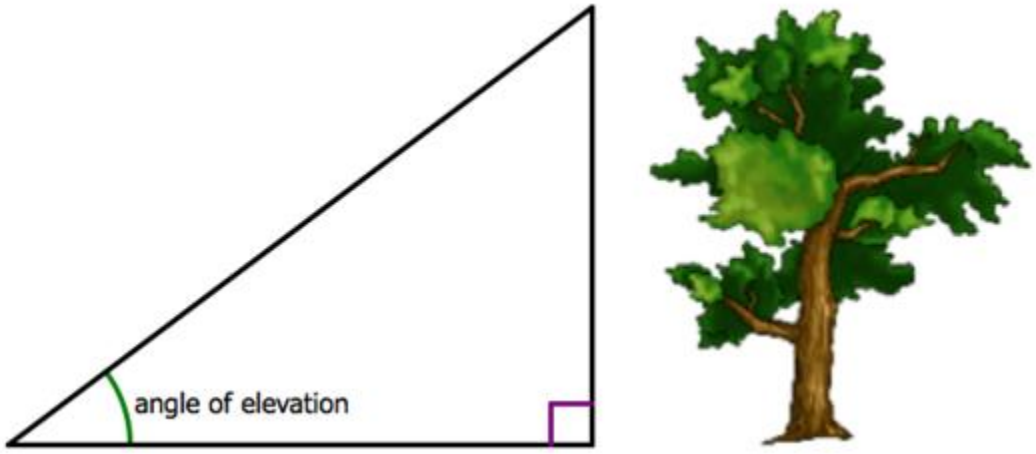
$$\sin(10) = 3 / XZ$$
$$XZ = 3 / \sin(10)$$

We can divide the sine of 10 degrees (make sure your calculator is in degrees mode!!) by 3 in our calculator to get the answer: approximately 17.28. On the SAT, however, you won't be expected to have a calculator that can do this—so the answer would likely be given as 3/sin(10).

**Example 3:**

Here's one that's just a teensy bit harder, but we're going to apply the same principles.

The tree below casts a shadow that is 24 feet long, and the angle of elevation from the tip of the shadow to the top of the tree has a cosine of 4/5. What is the height of the tree?




The problem tells us that the cosine of the angle of elevation is 4/5. Remember SOHCAHTOA? We are concerned with the adjacent side over the hypotenuse. The fact that the cosine is 4/5 means the ratio of the adjacent side to the hypotenuse is 4/5. So we can set up a proportion:

$$4/5 = 24/x$$

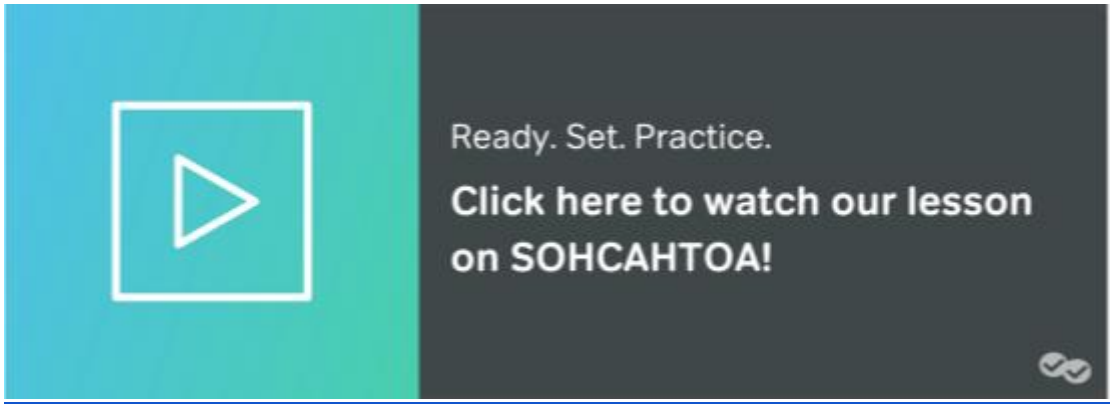
Cross-multiplying to solve for x gives us x = 30.

But remember: this is the hypotenuse! We need to find the length of the *vertical side* to find the height of the tree. Now, though, we can use the Pythagorean Theorem to find the length of the vertical side.

$$24^2 + b^2 + 30^2$$
$$=18$$

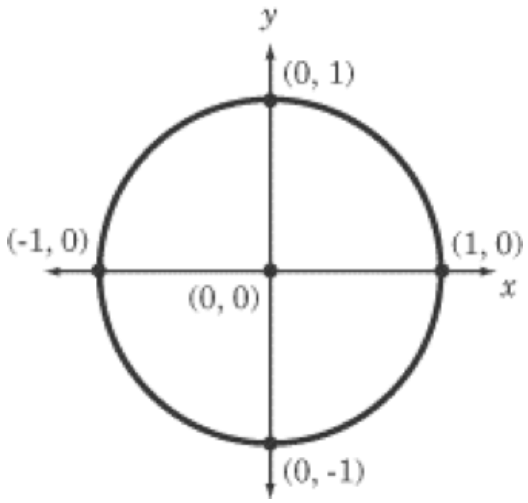
So the height of the tree is 18 ft.

Notice that, if you recognized that we had a 3-4-5 triangle in the beginning, you could actually have taken a shortcut and just used the tangent of the angle of elevation to figure out the height. Even if you didn't realize that, though (and only a few students will have!), just knowing SOHCAHTOA just about guarantees you will be able to nab at least one trig question on the test.




**The Unit Circle**

This is a unit circle. It's a circle with a radius of 1 centered about the origin.




There are a cornucopia of fascinating aspects to the unit circle: I suggest you consult the interwebs or your math teacher to find out more. We're just going to go through the absolute basics here, but that's really all you'll need to answer most SAT questions relating to the unit circle (I'm going to stand by that statement until the SAT releases a tough unit circle question—something they've yet to do).

**The SAT will test whether you know where angles larger than 360 degrees lie, and the unit circle helps us visualize this.**

There are 360 degrees in a circle, but we can just keep swinging the arm of the angle around counterclockwise (just like the hands of the clock) to get to an angle bigger than 360. So, for example, if you want to know where an angle of 760 would be, you would circle around the circle twice (for a total of 720 degrees) and we would have 40 leftover degrees. So that angle would lie in the upper right quadrant of the unit circle (Quadrant I).

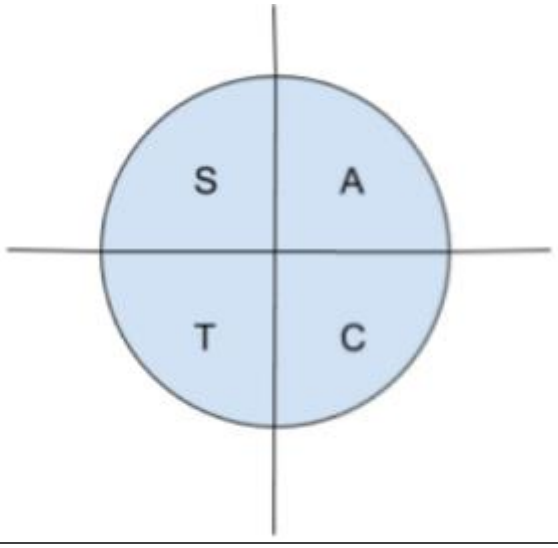
**The SAT will also often use *radians* on trig questions, and the unit circle helps us wrap our heads around this.**

(A radian is 180/**π**°, or about 57.3°, and it's the angle made when you wrap the radius around the circle**.)**
You should know that:

90 degrees on the circle = **π**/2
180 degrees = **π**
270 degrees = 3**π**/2

360 degrees =2**π**

The SAT will also test whether you know where the sine, cosine, and tangent of angles are positive or negative on the unit circle.




There's a great mnemonic to help you remember where trig functions are positive or negative:
**A**ll **S**tudents **T**ake **C**alculus

This helps you remember that:

In Quadrant 1 → **A**ll (sine, tangent, cosine) are positive
in Quadrant 2 → only **S**ine is positive (and cos and tan are negative)
in Quadrant 3 → only **T**angent is positive (and sin and cos are negative)
in Quadrant 4 → only **C**osine is positive (and sin and tan are negative)

**Imaginary Numbers**

Ah, imaginary numbers—the imaginary friends of the math world. But realistically speaking, that's an unfortunate name, since these numbers don't exist in some fantasy realm, but are actually just a different type of number and, for SAT purposes, a very helpful one: imaginary numbers allow you to get around that pesky you-can't-take-a-square-root-of-a-negative-number rule.

For the most part, what you'll be doing with these imaginary numbers is not understanding the niceties of the concept, but rather using them to apply algebraic rules of balancing the equation. The key to unlocking any imaginary number problem on the SAT is the following:

$$i = \sqrt{-1}$$

From this, we can figure out:

$$i^2 = -1$$

$$i^3 = -i$$

$$i^4 = 1$$

# Geometry Formula Cheat Sheet

Here are some good formulas and rules to keep in mind (but don't actually cheat with this sheet! That's not what we meant!).

## Angles

A right angle is made up of 90 degrees.

A straight line is made up of 180 degrees.

If two lines intersect, the sum of the resulting four angles equals 360.

## Polygons

A polygon is any figure with three or more sides (e.g., triangles, squares, octagons, etc.).

To find the total degrees of a polygon: $180(n - 2)$ , where n is the number of sides.

## Geometry Formulas: Triangles

Area equals ½ ( base x height)

An isosceles right triangle (45-45-90) has sides in a ratio of $x : x : x\sqrt{2}$

An equilateral triangle has three equal sides. Each angle is equal to 60 degrees.

Any given angle of a triangle corresponds to the length of the opposite side. The larger the degree measure of the angle, the larger the length of the opposite side.

A few right triangles are special: for these, all three of their sides are integers. The most important to know are {3, 4, 5} and {5, 12, 13}, as well as any multiples of those.

The length of the longest side of a triangle can never be greater than the sum of the two other sides.

The length of the shortest side of a triangle can never be less than the positive difference of the other two sides.

**Geometry Formulas: Circles**

Circumference equals $2\pi r$ or $\pi D$ (where r = radius and D = diameter)
Area = $\pi r^2$.

A fraction of the circumference of a circle is called an arc. To find the degree measure of an arc, look at the central angle.

Regarding the properties of inscribed squares, if x is the side of the square, the diameter of the circle into which the square is inscribed will equal $x\sqrt{2}$.

**Geometry Formulas: Quadrilaterals**

The area of a square is $s^2$ (s = side).

The diagonals of a square bisect one another, forming four 90 degree angles.

The diagonals of a rhombus bisect one another, forming four 90 degree angles.

The perimeter of a rectangle is twice the length plus the twice the width.

The area of a parallelogram can be found multiplying base x height (the base always forms a right angle with the height).

**Geometry Formulas: Three-Dimensional Shapes**

The surface area of a cube is equal to $6s^2$ , where s is the side of the cube.

The volume of a cube is equal to $s^3$.

The volume of a cube and the surface area of a cube are equal when s = 6.

The volume of a cylinder is equal to $\pi r^2 h$, where h is the height and r is the radius of the base.

## Coordinate Geometry

The slope of a line can be found subtracting the y-values of a pair of coordinates and dividing it by the difference in the x values.

To find the y-intercept of an equation, plug in zero for x and solve for y.

To find the x-intercept of an equation, plug in zero for y and solve for x.

The slopes of two lines that are perpendicular to each other are in the ratio of x : -1/x, where x is the slope of one of the lines (think: negative reciprocal).

## Tips and Strategies for Preparing for New SAT Math

Many students get bogged down in the minutiae of each kind of question, and lose sight of the forest for the trees. What is ultimately most important on SAT math is how well students are able to focus for a few hours and wade through all the language to get at the answer. If they let themselves get overwhelmed, they'll end up missing many questions they could have answered had their minds not been so worn down.

Why is this? Well, students probably won't have done as many timed drills on dense word problems. This is a skill in and of itself, and one that most will end up ignoring in favor of studying some concept that has a relatively low chance of showing up on the test—and showing up the way they think it will.

With that said, do have students review concepts in their weak areas. This is especially critical for those that struggle with math. But remember, timed practice sessions are going to make students into better test takers; *that's* where they'll be able to see score improvement.

Another good strategy, when assigning drills, is to make sure to add in mixed practice sets. That is, don't only have them focus on Heart of Algebra or Passport to Advanced Math questions. Require actual practice tests that have the random variety of question types that students will see test day. Part of the difficulty of the SAT math section is often figuring out the subject that is being tested. When students know what they're working on from get-go during practice, it dulls their ability to recognize individual concepts on test day.

One last area where practice tests will help is with evaluating levels of difficulty. Remember, the test is written in such a way so that a certain difficulty-level question is usually at a specific spot in the section. This relationship tends to be pretty linear, in the sense that the higher the number within a specific math section (the difficulty will "reset" at the Student-Produced Response (SPR) questions), the harder the question. Knowing this can help catch careless errors. Have students ask themselves, "did the last question in the section seem too easy?" If so, they might have missed something. The same goes for if one of the earlier questions seemed impossible. In this case, have students read the question again, because there might be some vital information that they are forgetting.

Finally, **make sure students take a practice test about once a week**. That way, they can get exposure to the nuanced ways the test is constructed, they can get information on whether or not they are improving (and use this to tweak how they're studying), and they can get used to what's going to happen test day: lots of sitting and lots of focusing.

# SAT Study Schedules

## Making the Most of Your SAT Study Schedule

The first challenge of studying for the SAT for students is finding the time and energy to get started.

The second challenge? Committing to the study plan.

For many students (the majority?), high school is a game of time management: finding a way to complete all the homework, study for tests, finish projects, manage all the extracurricular activities, sleep, and maybe even have some time left over for themselves.

Throw standardized tests into the mix? Even the most well-organized schedule falls apart at the seams. It can be tough as an instructor to guide students towards test prep with so many other commitments vying for a student's time. That being said, there are ways to help students navigate this time crunch.

Offering students a variety of SAT study plans that can work for them, and helping them stick to that selected plan, can help them stay organized and self-motivated while keeping procrastination at bay. With a good study plan, they'll study a little bit every day, preventing the weekend-long cram sessions that ruin sleep patterns and don't do much to improve test scores either.

Rather than create your own study guides from scratch, check out the Magoosh SAT Study Schedules online. They list all the materials and resources students will need to study for the SAT (many of which are even free), and then give them day-by-day assignments covering all SAT topics and test strategies.

### How to Use an SAT Study Guide

There's no such thing as a one-size-fits-all study schedule. However, helping students adapt a study schedule to their needs shouldn't take too much effort. Here's what they can do:

**1. Honestly assess SAT strengths and weaknesses.**
Do they always struggle with a certain SAT test (that's what the test-maker calls each section), or with a certain question type? They should focus extra time and energy here. For example, doing extra practice problems, reading up on the subject, or learning specific strategies for outsmarting the SAT's questions on that subject. Is the problem time

management? They need to practice with a timer and always answer the easiest questions first to get points for low-hanging fruit!

**2. Determine how much time they can *realistically* devote to SAT prep.**

Students who are working, playing sports, volunteering, and maintaining a full course load all at the same time, probably can't commit to an hour of SAT prep each day. In this case, they might want to break the Magoosh One Month SAT Study Schedule into smaller units and tackle it over two or three months. It's okay to reschedule an exam to give themselves more time to study. Help your students to set realistic goals —it's important that they have time to sleep!

**3. Have them always check their work and understand where they're making mistakes.**

Just doing practice problems won't improve an SAT score very much. Students need to figure out why they are missing the problems that they get wrong, and then re-do those problems until they get them right. There's no use in making the same mistakes over and over during SAT prep; it just means that they'll get the same types of problems wrong when they show up on the SAT.

**4. Set small goals and keep track of progress.**

Have students set concrete goals like, "By the end of the week, I will be able to do SOHCAHTOA problems without consulting my notes." Or help them build their own reward structure for studying. For example, if they decide to follow the Magoosh One Month Schedule day by day, then reward themselves at the end of the week with a trip to a guilty pleasure food joint or an hour of TV time. It also helps to make sure students are logging progress in a notebook or on a computer to keep track of goals and note which topics give them the most trouble.

**5. Help them incorporate SAT prep into the rest of their lives.**

Achieving a goal score on the SAT takes more than just studying. Students also need to eat right, exercise, and get enough sleep. If the body and mind are healthy, students will be much more calm and confident heading into this challenge. So, encourage them to take meaningful study breaks! Whether they spend it hanging out with friends, watching a favorite show on Netflix, or going on a leisurely jog … it's all in the name of test prep.

## Which Strategy Will Work Best?

It's okay—in fact, it's great—if a student's SAT study plan is unique! Making the most of an SAT study schedule requires adapting it to that student's particular needs. They should feel free to experiment with various strategies from the College

Board's official book, Magoosh's lessons, and other resources to see which ones work best (there's no "one size fits all" approach to the SAT).

Encourage patience if they don't see their scores shoot up immediately. New strategies may slow down or even mess up students at first, but practicing will give them extra tools on test day if they keep at it.

Once they've practiced enough problems, refreshing their knowledge and test-taking skills, schedule a time for them to sit down and take a full-length practice test. Set a timer for each section and set up a quiet room to mimic test-taking conditions. The goal is not to get every question correct on every practice test, but rather to get a feel for what the timing of each section is like. They may not finish each test on the first try, but they'll know what strategies they need to practice.

### How Do I Know if the Study Plan Works?

Focus on progress, and don't be surprised if students don't score as high on the first couple practice tests as you'd like. Preparing for a test takes organization, practice, and a positive mental attitude. And while we're at it, let's dispel another myth: there is no such thing as a "good" or a "bad" test-taker. Some students are just more familiar with the content areas and strategies on the test than other students are. **Test-taking is a learned skill**, so don't be discouraged. Your students *will* improve as they continue to study and familiarize themselves with the test.

### Finding and Using Great SAT Resources

A great place to begin learning about the test itself is at collegereadiness.collegeboard.org. If you can, order an official copy of the *The Official SAT Study Guide (2016 Edition)*. It includes full-length practice tests as well as answers and explanations.

Free SAT practice materials abound online, but make sure that they are high quality, or your students may be practicing with outdated materials. For help finding great SAT resources online, check out our Free SAT Practice Tests post on our blog.

Start assigning some practice problems to help students get a feel for the format of the test and begin learning their individual strengths and weaknesses. Don't worry if they get a lot of questions wrong at first. A great idea is to have them create SAT study folders and add a "Formula Sheet" and a "Vocab Sheet," where they can write any unfamiliar math formulas and vocabulary they come across in their studies. They should also make flashcards, if that's an easy way for

them to learn! And finally, don't forget to check out Magoosh's SAT course and resources for a one-stop shop for SAT prep!

# SAT Scoring

## Scoring On The Redesigned SAT

Scoring on the SAT has gotten both simpler and a whole lot more complicated since 2016. But let's start with the simple first.

**The test is no longer scored out of a total of 2400 points. It is now out of 1600 points.** Reading and writing have been lumped into one section that is scored out of 800. The math section will constitute the other 800 points. And remember how the essay used to be part of the writing score? Well, now the essay will be optional and will not be included in the writing score.


In line with the simplicity motif, **guessing will no longer be penalized**. That's right, the pesky -¼ point penalty (pesky because it was tedious to calculate and it redounded negatively on the score) has gone the way of dinosaurs and bell-bottoms.

So how have things gotten more complicated? Well, there will be different domains of knowledge that will stretch across multiple sections. For instance, the ability to interpret data, AKA "the graph," will be tested across both sections; some of the reading passages and some of the writing sections will have questions dealing with graphs. Another domain will test students' ability to understand how words function in context. The idea is that colleges won't just know a student's score, but they will also have a breakdown of that student's skills across a variety of areas.

All questions will be weighed the same. However, the number of correct answers needed to get a specific score (a topic referred to as “scaling”), can change *veeery* slightly between tests. To talk about this, let's distinguish between "raw" scores, which are the numbers of questions correct in each section, and "scaled" scores, which are scores on the 400-1600 scale (after all, students aren’t answering 1600 questions!).

## Calculating Your SAT Score

Calculating the new SAT score should be easy now that there is no guessing penalty. All you have to do is count the number correct for a section (the raw score) and look at a table. Right?

Sadly, this is not the case. Instead, we now have two tables, one to convert a raw score to a score out of 40, and another one to see what score on the 800 scale that score of 40 corresponds to.

I know, that last sentence might have been confusing. But that's because the new SAT scoring is, well, slightly confusing.

And a magical SAT score calculator will never exist because each SAT test is scored a little bit differently. So we're left to deal with the tables, but let's take a look and break it down.

To give you a specific example, let's take the SAT Reading section. It has a total of 52 questions. Let's say a student missed 15. This will give her a raw score of 37. How did I find this? I just subtracted 15 (the number wrong) from the total in the section (52 - 15 = 37).

But there is a next step. You will need to convert that raw score to a scaled score (that's the one out of 40 points). To do this, let's use the table below. First step: find the column on the left. This gives you the raw score that you can convert to Math, Reading and Writing Scores.

This SAT raw to scaled conversion chart is from SAT Practice Test 1 available on the College Board website. You can use it to help estimate an SAT score from any practice test, but remember each test will vary slightly.

| Raw Score (# of correct answers) | Math Section Score | Reading Test Score | Writing and Language Test Score |
|---|---|---|---|
| 0 | 200 | 10 | 10 |
| 1 | 200 | 10 | 10 |
| 2 | 210 | 10 | 10 |
| 3 | 230 | 11 | 10 |
| 4 | 240 | 12 | 11 |
| 5 | 260 | 13 | 12 |
| 6 | 280 | 14 | 13 |
| 7 | 290 | 15 | 13 |
| 8 | 310 | 15 | 14 |
| 9 | 320 | 16 | 15 |
| 10 | 330 | 17 | 16 |
| 11 | 340 | 17 | 16 |
| 12 | 360 | 18 | 17 |
| 13 | 370 | 19 | 18 |
| 14 | 380 | 19 | 19 |

| Raw Score (# of correct answers) | Math Section Score | Reading Test Score | Writing and Language Test Score |
|---|---|---|---|
| 15 | 390 | 20 | 19 |
| 16 | 410 | 20 | 20 |
| 17 | 420 | 21 | 21 |
| 18 | 430 | 21 | 21 |
| 19 | 440 | 22 | 22 |
| 20 | 450 | 22 | 23 |
| 21 | 460 | 23 | 23 |
| 22 | 470 | 23 | 24 |
| 23 | 480 | 24 | 25 |
| 24 | 480 | 24 | 25 |
| 25 | 490 | 25 | 26 |
| 26 | 500 | 25 | 26 |
| 27 | 510 | 26 | 27 |
| 28 | 520 | 26 | 28 |
| 29 | 520 | 27 | 28 |

| Raw Score (# of correct answers) | Math Section Score | Reading Test Score | Writing and Language Test Score |
|---|---|---|---|
| 30 | 530 | 28 | 29 |
| 31 | 540 | 28 | 30 |
| 32 | 550 | 29 | 30 |
| 33 | 560 | 29 | 31 |
| 34 | 560 | 30 | 32 |
| 35 | 570 | 30 | 32 |
| 36 | 580 | 31 | 33 |
| 37 | 590 | 31 | 34 |
| 38 | 600 | 32 | 34 |
| 39 | 600 | 32 | 35 |
| 40 | 610 | 33 | 36 |
| 41 | 620 | 33 | 37 |
| 42 | 630 | 34 | 38 |
| 43 | 640 | 35 | 39 |
| 44 | 650 | 35 | 40 |

| Raw Score (# of correct answers) | Math Section Score | Reading Test Score | Writing and Language Test Score |
|---|---|---|---|
| 45 | 660 | 36 | |
| 46 | 670 | 37 | |
| 47 | 670 | 37 | |
| 48 | 680 | 38 | |
| 49 | 690 | 38 | |
| 50 | 700 | 39 | |
| 51 | 710 | 40 | |
| 52 | 730 | 40 | |
| 53 | 740 | | |
| 54 | 750 | | |
| 55 | 760 | | |
| 56 | 780 | | |
| 57 | 790 | | |
| 58 | 800 | | |

## How to Calculate the SAT Math Score

1. For math, count the number of questions answered correctly in both the 20-question section and the 38-question section.

2. Use the table above to figure out what score the scaled score corresponds to. Look at the column titled "Math Section Score." This will give you the actual score.

*Example*: Say your student answers 38 of the 52 math questions correctly. This will give her a raw score of 38.

To find out what this translates to in math, just look under the adjacent column to the right (the "Math Section Score"). This number is 600. Therefore, he got a 600 on math.

## How to Calculate the SAT Reading/Writing Score

To figure out the verbal score, which is a combination of the 52-question reading section and the 44-question writing section, follow these steps.

1. Count the number of questions answered correctly in the reading section (this number is out of 52).

2. Change the raw score into the scaled score by looking at the column "Reading Test Score."

3. Count the number of questions answered correctly in the writing section (this number is out of 44).

4. Change the raw score into the scaled score by looking at the column "Writing and Language Test Score."

5. Add the writing scaled score to the reading scaled score. Multiply this number by 10. This will be the verbal score.

*Example*: Say a student answered 32 questions correctly on the reading section. This translates to a score of 29. For the writing section, she answered 29 questions correctly. This translates to a 28. We'll add 28 and 29, giving us 57. Then, we multiply that number times 10 (57 x 10 = 570). Her verbal score, in this case, is 570.

## One Last Thing About SAT Score Calculations

Each SAT is not created the same; they differ ever so slightly. One might be a tiny bit more difficult than the other. How do we account for these variations? With a process called equating, that tries to compare SAT tests of varying difficulty. Since the math behind this requires a Ph.D. in statistics, we don't actually have to understand how equating is done. We just have to expect that not every scale is the same.

For instance, a 57 in math can sometimes result in a perfect 800. This will happen when you get a math section that is slightly more difficult than math sections that follow the scale above. But I doubt there will be a test in which a 56 will get anyone a perfect score. Again, the differences are ever so slight. Even if a 57 is an 800, a 56 will likely be a 780, as we see on the scale above.

## What a Score Means

We're all thinking it, so I'll go ahead and say it: the new SAT scoring system is extremely confusing. There are subscores, cross-test scores, and much more. Because I don't want you to be uncertain about something as important as SAT scores, I'm here to dispel any confusion.

First, let's talk about average SAT scores: the average score on each section is **500 points**. The **average overall SAT score is 1000**. These are theoretical averages, but the real averages tend to be within about 20 points, plus or minus, of 500 points.

Now things are going to get a little more complicated. On the new SAT there are at least three different types of scores. So hold onto your seats.

### Types of Scores

**1. Test Scores**

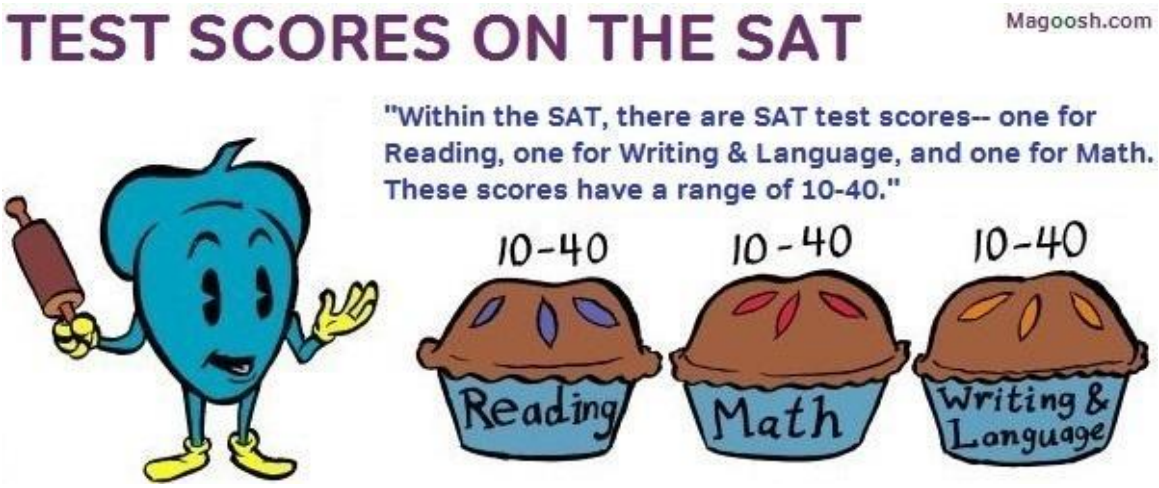
Okay, so the new SAT lumps the separate reading and writing sections into one 800 score. But the College Board still wants to still give colleges a better idea of how to understand student SAT scores: how they did on the reading section and they you did on the writing section.

That makes sense, but for good measure, they figured they'd throw math in as a test score. So the three "test scores" are as follows:

**Reading Test Score**
**Writing and Language Test Score**
**Math Test Score**

How important are these "test scores"? Honestly, they just give people looking at a score report a way to compare one set of scores to students who took different versions of the SAT. This relates to the idea of equating (mentioned above), which allows the SAT to compare scores between different tests. But it's pretty technical and the statistics folks over at College Board take care of this–you just have to look at the score.

**What is important for you—and what colleges will likely look at if they want to get a better sense of performance—is how did the student do on the Reading section and the Writing section.** After all, a student could do very poorly on Reading yet thrive in Writing, and get the same verbal score as somebody who was average in both sections.




**2. Cross-test scores**

The new SAT doesn't have a science section like the ACT does, but it does have what are called cross-test scores. Essentially, there are questions that are science related, whether they are in the math section, the reading section, or the writing section (hence the name "cross-test"). There are also cross-test scores that are history/social studies related.

Here's how the College Board terms the cross-test sections:

1. **Analysis in History/Social Studies**
2. **Analysis in Science**

*Each score will be on the same scale as test scores: 10-40.*


**3. Subscores**

The College Board wants to give college admissions officers as much information as possible. There are seven of these subscores. The first two relate to reading comprehension, the next two relate to writing and the last three relate to math.

**Reading Subscores**

1. Command of Evidence
2. Words in Context

**Writing Subscores**

3. Expression of Ideas
4. Standard English Conventions

**Math Subscores**

5. Heart of Algebra
6. Problem Solving and Data Analysis
7. Passport to Advanced Math

*Each of these subscores will be based on a 1 to 15 scale.*

**4. Optional Essay Scores**

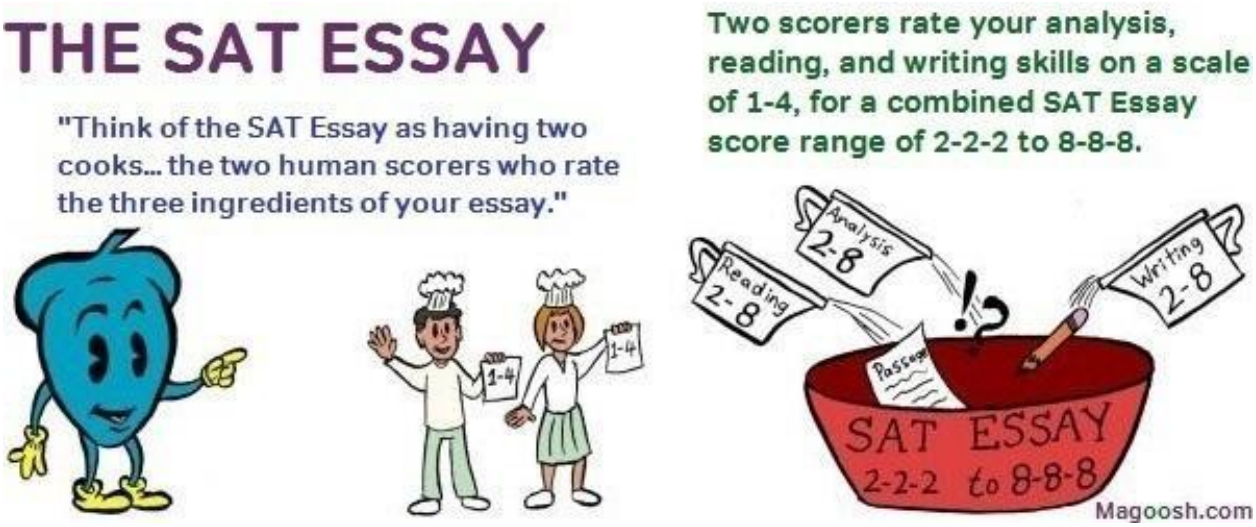
Last, and perhaps least (for those not taking the essay), we have three scores based on the 55-minute writing sample.

Here's what you need to know:

- Two graders will be scoring each essay.
- Each grader will give the essay a score (1-4) for three different criteria.
- The three criteria are reading (understanding the passage), analysis (describing how the writer is persuading his/her audience), and writing (writing quality).

This gives us a total of 24 possible points—but the score won't be out of 24. **The scores will NOT be added up, but will be presented as three separate scores: a 2-8 range for reading, a 2-8 range for analysis, and a 2-8 range for writing.**

So a possible SAT essay score might look something like this: *7 reading/5 analysis/6 writing.*




### Old vs. New SAT Scores

Why-oh-why did the SAT even come up with such a complex scoring system in the first place? My theory is that the SAT wants to give schools a better breakdown of your skill set. On the old SAT, there were just three section scores. Now, colleges that want to know the difference between two very similar candidates, in terms of SAT scores, can learn a lot more with the subscores and cross-test scores. At the same time, colleges don't want to be inundated with all this

information for each of the thousands of candidates they look at. This way, they can start with the general score and if they want to dig deeper, they can look at these other scores.

The old SAT and new SAT are very different; a student who might have scored in the 95% on the old math section might not even crack 80% on the new one, or vice versa. But we have to be able to compare scores between old and new SAT candidates; otherwise we won't have a way to compare students who took only the old test to those who took the new test.

So how do we compare new SAT scores to old SAT scores? With a table to show which score on the old SAT corresponds to which score on the new SAT, colleges can have a real sense of how the new test stacks up to the old one.

Though the tests are pretty different, another way to compare the two is by using SAT score percentiles. If 800 used to correspond to the top 1%, then the same should apply to the new test. (I'm just using a vague example here). It's actually a lot more complicated than this (some of the statistics involved is Ph.D level stuff). But that's a very loose sense of how it works.

## SAT Score Ranges

So that's how the SAT is scored—but without context, that still probably doesn't mean very much to you. What should your students' goals be? What do current practice test scores mean?

### Score Ranges for the Top 10 Universities

We've put together a table of SAT score ranges for the top 10 universities in the United States (you can find the top 100 here!) This table gives the "old" SAT score ranges for these schools (the middle 50%), and we've converted them to new SAT score ranges so that students will have a sense of what they need to be aiming for. Like I mentioned above, the (theoretical) average overall SAT score is 1000.

Keep in mind too that we don't yet have *perfect* data from schools about new SAT score ranges because not enough students have applied yet with new SAT scores. But this table should get you close enough to know whether or not your students are in range for their dream schools!

| University | Old SAT (25th to 75th Percentile Scores) | New SAT (25th to 75th Percentile Scores) |
|---|---|---|
| Princeton University | 2100-2380 | 1400-1590 |
| Harvard University | 2100-2350 | 1470-1580 |
| Yale University | 2140-2390 | 1420-1590 |
| Columbia University | 2090-2350 | 1450-1590 |
| Stanford University | 2080-2360 | 1390-1580 |
| University of Chicago | Not Reported | 1460-1550 |
| Massachusetts Institute of Technology | 2120-2360 | 1470-1590 |

| | | |
|---|---|---|
| Duke University | 2100-2380 | 1400-1590 |
| University of Pennsylvania | 2100-2380 | 1400-1590 |
| California Institute of Technology | 2240-2340 | 1530-1570 |

### Ivy League Score Ranges

Everyone is always wondering about the Ivy League and SAT scores–which should come as no surprise. The Ivy League is highly competitive, and SAT scores give admissions boards a chance to find out who the top of the top are (at least as far as test scores go).

Below is a table showing the middle 50% score range (meaning 25% of admitted students had lower scores and 25% had higher scores) for Ivy League schools:

| University | Old SAT Score Range | Projected New SAT Score Range |
|---|---|---|
| Brown | 2000-2300 | 1410-1570 |
| Cornell | 1970-2270 | 1390-1550 |
| Columbia | 2090-2350 | 1460-1580 |
| Dartmouth | 2050-2340 | 1440-1580 |
| Harvard | 2130-2400 | 1480-1600 |
| University of Pennsylvania | 2050-2330 | 1440-1570 |
| Princeton | 2100-2400 | 1470-1600 |
| Yale | 2120-2390 | 1480-1600 |

## How to Improve SAT Score Range

Each score has its own range; it's not set in stone. Preparation is a huge factor, as is how well a student performs on test day.

The most important thing to do with your students is establish a baseline.

What that means is **you should assign an official practice test before doing anything else** (there are several available at Khan Academy for free, or in the Official Study Guide for a little bit more). This will give you what is called a baseline score for each student. This is the score students get when they haven't started preparing yet.

The goal is for a student to increase that SAT score as he takes subsequent practice tests. Brushing up on the fundamentals is the first order of business. Next, improve how well a student tests. As you have likely seen, this is a skill, too. Good test-takers are often those who've developed this skill, and therefore get a good SAT score. What this means is you should instruct students on how to pace themselves during an exam, how to remain calm when a question flusters them (often *guess and move on* is the best strategy), and how they can avoid careless mistakes in the future.

So now that you know how students earn their scores and what they mean, let's talk a little bit about what to do with them. Or rather, what *not* to do with them…

## Avoid Score Drama

Obviously, studying for the SAT is no piece of cake. But students can have a tendancy to exacerbate the stress by introducing drama to the process. Here are our top tips to help students avoid catfights, gossip and more:

**1. Don't Check Scores Around Friends**

We can advise against this from personal experience: tears because some students got lower scores than their friends; guilt over higher scores. It's always a bad scene.

Moral of the story: make sure your students know it's okay (and preferable!) to have a private place to be when they check scores. And that they don't feel pressured to share their scores with friends if they don't want to.

**2. Don't Judge People's Responses to Their Scores**

Students who find themselves in situations where they have to be around their peers when everyone is checking scores need to focus internally. As with school tests, they shouldn't worry about other people's responses, happy or sad. Everyone is different, so everyone will have different reactions.

Students need to know that if someone is enthusiastically happy with what they think is a low score, to let them be. If someone is sobbing over a score that's higher, the student needs let them sob. That's also their prerogative. We never know how much work a student put in, or what kind of emotional stress they are under.

**3. Don't Spread Scores Around**

To many, SAT scores are private information. Just because someone shares their score doesn't mean they want it to become common knowledge to the whole student body.

News of various students' scores can be a big source of gossip in high school. Create a safe space for your students by reminding them that it's other people's business and it has nothing to do with them.

**4. Understand Context**

It doesn't make sense for Suzy to compare herself to Jimmy, because everyone prepares for the test differently. If someone got a higher score than someone else, it most likely means that they studied more. Maybe they were able to afford tutoring that another couldn't. You never know.

# SAT Resources

## Test Day Tips - For Students

After all this time, SAT test day is finally looming. Here are some tips to make sure it goes as smoothly as you hope.

**SAT Tip #1: Pack the day before.**

The last thing you want to worry about as you shake yourself awake on test day is what you need to bring.

*Here's a complete list of what you should have handy:*

- admissions ticket (print from collegeboard.org)
- photo identification (Crucial! You will not be admitted without it.)
- several sharpened soft lead No. 2 pencils (the old fashioned wooden kind; NOT mechanical.)
- a permitted calculator
- extra batteries
- a watch to pace yourself (you can't rely on the fact that the test room will have a clock and no, you definitely *cannot* use your phone for this!)
- eraser
- pencil sharpener
- healthy snacks (see below)
- a water bottle
- gum (Did you know chewing gum improves accuracy and reaction times? Check out this and other test prep lifehacks on our blog!)
- an outfit with layers (Your test room may be too hot or too cold. It is rarely just right, Goldilocks.)

**SAT Tip #2: Go to bed early.**

Make sure you're giving yourself a solid night of sleep. For most teenagers, this is eight to nine hours. Figure out when you need to get up to be completely ready and at the test center stress-free. and work backwards from this time to figure out when you need to go to bed. If you can't sleep, though, don't force it. Get up and do something else and try again in a half hour. Don't lie there agonizing.

**SAT Tip #3: Wake up early and do some physical and mental exercise.**

Go for a jog; do some jumping jacks. Waking both your body and mind up is crucial. Read some articles from the newspaper and focus on finding the main idea. Try a couple of math problems. Avoid the urge to do any last-minute SAT prep, but *do* warm your brain up for the test.

**SAT Tip #4: Eat a healthy, long-sustaining breakfast.**

We like granola, fruit, eggs and veggies. Protein, protein, protein! Drink coffee **only if you are used to it**. Don't try it now if it you're not–you might get crazy jitters.

**SAT Tip #5: Bring a cheat sheet.**

Not THAT kind of cheat sheet. But we recommend bringing an "SAT strategy cheat sheet" that you can review before the test and then tuck safely away in a bag. This should include the most important reminders you've learned from your test prep such as "Don't forget to watch out for comma splices!" Having a last-minute review list can help you remember that you are, in fact, prepared and you do, in fact, got this. (If you've been keeping an error log throughout your practice, this is a great place to crib "cheat sheet" tips from!)

**SAT Tip #6: Don't lose your cool before the test.**

Libraries or cafeterias full of arriving test-takers are generally not calm places. To be more blunt, you could cut the nervous energy with a knife. A sampling of whom you may see: many anxious students fretting about whether or not there will be a comparison reading passage or quizzing each other on logarithms. Or even worse, a kid leaning up against the wall who looks like he could care less. Or a group of your friends pulling you into some Homecoming Dance drama that distracts you from the task at hand.

Of course, eventually you need to officially check in, but if you get to the test center early, by all means, pull out your headphones, blast your favorite pump-me-up music and hang out outside. You've done too much preparation to let these other students shake your confidence.

**SAT Tip #6: Keep your focus during the test.**

A surefire way to *not* get the score you want is to pay constant attention to the test-takers around you. *How does that girl in front of you answer math problems so fast? Why can't that kid stop tapping his foot?* Try to stay in the zone and focus on your particular strategies. Everyone is different, and what these other students are doing is irrelevant. And it should go without saying that you should avoid any temptation to peer at your neighbor's answer sheet. Cheating is not a risk you want to run here. (And he's probably wrong, anyway.)

**SAT Tip #7: Eat during your breaks—even if you aren't hungry.**

Your brain needs fuel just like the rest of your body, even if your nervous stomach doesn't think so. And the last thing you want is to let a perfectly good snack break go to waste only to regret it later, when your stomach is howling halfway through the Science section. Fruit is great test fuel: the natural sugars help give you energy.

Make sure to have something with protein too, like a handful of nuts. Many of our students swear by peanut butter and jelly sandwiches or trail mix with chocolate for the perfect combo of sugar and sustenance. Don't forget the water!

**SAT Tip #8: Reward yourself.**

You worked hard for this, and no matter how you think the test went, treat yourself to something you enjoy afterwards. You need the mental break and relaxation. But as important as an after-test reward is, what is even more important is rewarding yourself during the exam.

No, you can't whip out a cookie in the middle of the English section, but you *can* give yourself mental pats on the back when you catch yourself doing something right. So many students beat themselves up during a test for what they think they are doing wrong. Put a stop to this destructive mentality and instead congratulate yourself when you find yourself doing something right: sticking to your pacing or recognizing a grammar error you've missed before. It's a long test and a positive attitude is crucial!

Cheers to a fantastic test day!

## Book Reviews

By this point, all the big test prep book publishers (I'm talking College Board, Princeton Review, Kaplan, and Barron's) have released a book for the redesigned SAT. But not all SAT prep books are created equal: some you'll want to use in their entirety (though only a few); others you'll want to use only parts of; and yet others you'll want to steer clear of.

To help you maximize student study time (and save that hard-earned cash) I've reviewed the top options for SAT books on the market and broken them down into the good, the bad, and the (not so) ugly. If you see the same book in multiple sections, don't worry—you're not going crazy. That just means that some publishers do a good job on some things (like practice tests or a specific section of the New SAT) and a sub-par job on other things. This doesn't necessarily mean that you or your students shouldn't buy the book, but it might mean that you won't use the book in its entirety.

### A Quick Summary

We'll start by looking at a brief summary of the book's' quality before providing detailed rankings and reviews below.

| Ranking | Grade | Title | Publisher | Price* |
|---|---|---|---|---|
| 1 (tie) | B+ | Kallis' SAT Pattern Strategy | Kallis Education | $31.30 |
| 1 (tie) | B+ | Cracking the SAT Premium Edition with 6 Practice Tests, 2017 | Princeton Review | $23.32 |
| 2 (tie) | B | PWN the SAT: Math Guide | Mike McClenathan through CreateSpace | $25.64 |
| 2 (tie) | B | 500+ Questions for the New SAT | Princeton Review | $44.59 |
| 2 (tie) | B | 9 Practice Tests for the SAT, 2018 Edition | Princeton Review | $14.95 |
| 2 (tie) | B | Barron's SAT | Barron's Educational Series | $14.89 |

| | | | | |
|---|---|---|---|---|
| 7 | C+ | The Official SAT Study Guide 2018 | The College Board | $18.05 |
| 8 | C | Kaplan SAT Total Prep: 5 Practice Tests + Proven Strategies + Online | Kaplan Publishing | $24.16 |
| 9 | D+ | Kaplan's 8 Practice Tests for the SAT 2018 | Kaplan Publishing | $16.99 |
| 10 | D | Kaplan SAT Prep 2018: 2 Practice Tests + Proven Strategies + Online | Kaplan Publishing | $13.59 |
| 11 | D- | Barron's 6 SAT Practice Tests | Barron's Educational Series | $16.14 |
| 12 | UA: Utterly Atrocious | SAT Exam Secrets: Study Guide from Mometrix | Mometrix Media LLC | $14.22 |
| N/A (old SAT) | N/A | SAT Prep Black Book | SAT Tutoring | 2013 |
| N/A (PSAT) | B+ | Barron's New PSAT 2016 | Barron's Educational Series | 2015 |

*List prices given at time of publication, and are subject to change.

**The Good (the Best SAT Books)**

*The Official SAT Study Guide (2018 Edition)* - The Practice Tests

The Official SAT Study Guide is the holy grail of SAT test prep, a book that contains questions by the writers of the test (The College Board). Nowhere else will you get a better sense of what to expect test day. Specifically, there are four full-length practice tests with explanations (see "The Bad" for a comment on the explanations).

*Kallis SAT Pattern Strategy*

Kallis is definitely a lesser-known publisher than the "big three" (Barron's, Kaplan, and the Princeton Review), but they've come out with a solid book that can help students raise their scores. The book is at its best when it's describing the content of the New SAT. If it had a solid book of practice questions, this would be a home run.

*Princeton Review's Cracking the SAT Premium Edition with 6 Practice Tests, 2017*

One of the big challenges many students are facing on the new SAT is working with graphic stimuli in all sections. Cracking the SAT Premium Edition with 6 Practice Tests, 2018 does a great job not only of explaining the way the test uses these problems and the strategies students can use to approach them, but also of giving you a good number of test-like practice problems. There's also a huge amount of math practice!

**The Bad**

*Barron's 6 Practice Tests for the New SAT*

Awkward writing, un-test-like questions with debatable answers, bare-bones explanations…while Barron's sometimes puts out great products, Barron's 6 SAT Practice Tests is not one of them. There are so many better books of practice questions and tests out there—why waste your time and money?

*Kaplan's New SAT 2017 Strategies*

You know when you've asked a student to revise an essay, but the revisions are really big and the student didn't have a lot of time, so he just kind of moved some stuff around and stuck some new section titles in there? Yeah. Kaplan's SAT Total Prep is basically Kaplan's New SAT 2016. Thus, I'll just refer you below, to…

*Kaplan's New SAT 2016* - The Verbal Section

Kaplan does such a bad job of approximating the verbal section that I think students would be better off not using any Kaplan verbal content. The writing section questions, for instance, make the test seem overly easy. A professional supposedly wrote these passages, yet that person struggles to string together cohesive sentences (eloquence be damned!). (Read my full review of Kaplan New SAT 2016 below.)

*Kaplan's 8 Practice Tests for the SAT 2018*

Now, take any quality of the Kaplan New SAT 2016 book, make it slightly more intense, and apply it to eight practice tests. Wait, you don't have to—Kaplan's 8 Practice Tests for the SAT 2018 has already done this for you. The math is okay at best, but the verbal is misleading and unhelpful. The graphs, and the way the book uses them, are far simpler than what anyone will see on test day, and that's just the start of it. Steer clear!

*The Official SAT Study Guide* - The Explanations

College Board explanations leave something to be desired. If a student doesn't quite understand why she missed a question, the explanations often aren't very helpful. The strategy/test overview section of the book, which comes at the beginning, isn't very useful. I can imagine many students scratching their heads after reading some of the tedious, vague explanations of question types.

*SAT Exam Secrets: Study Guide* from Mometrix Media

This book is so bad that it actually needs its own category: "utterly atrocious" (but we will leave it here for now). Usually I don't like to pick on the little guys, but this book had so many positive reviews on Amazon that I had to review it. This book uses old SAT question types and has questions that are in no way like the actual exam. There is not one positive thing about this book. Avoid at all costs.

**The (Not So) Ugly**

*Barron's SAT*

Barron's does a decent job overall of recreating test questions and a good job of dissecting the test and offering helpful examples. Out of the main third-party publishers (Kaplan and The Princeton Review are the two others), this book and the Princeton Review's *Cracking the SAT* are the ones you should get.

*Kaplan SAT Prep Plus - The Math Section*

Though Kaplan's math is mentioned in the section above, the verbal section is a different breed altogether. Kaplan's general guide does a good job of breaking up math concepts so students can get a sense of the different areas covered. Additionally, there is a helpful practice quiz at the end of each section.

*Princeton Review 500+ Questions for the New SAT (2016 Edition)*

The Princeton Review has, on the whole, done an okay job. The questions aren't totally aligned — sometimes they are completely off—but, in general, what you get is a simplified version of the SAT: good for beginners, not so good for those wanting to prepare for the rigors of the actual test.

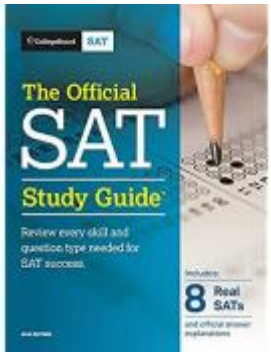
*Princeton Review's 9 Practice Tests for the SAT*

9 Practice Tests for the SAT, 2018 Edition is another okay effort from the Princeton Review. Like the 500+ Questions book, some of the math problems are too easy for students aiming for the top percentiles. On the other hand, the verbal here is pretty great, reflecting the new question types on the actual SAT. Not bad, Princeton Review. Not bad at all.

*PWN the SAT*

On its own, the PWN the SAT: Math Guide isn't enough to prepare you for test day. In combination with a few other resources, though (namely, the Official Guide), it's a great resource for students aiming for top math scores. It may scare off students who are weaker in math, who might want to try another math-specific guide (like Barron's 1600) for practice first. But if for those who want those last few points to a dream score, PWN can help you get them.

## Detailed Reviews




*The Official SAT Study Guide 2018*

This is like reviewing the Bible. The Official SAT Study Guide is so foundational to SAT success that it seems sacrosanct to suggest otherwise. So, instead of giving my five-star stamp of approval rating, I'm going to say something that might seem heretical: this book is flawed.

Sure, the questions in this book might be indispensable, but is the book uniformly useful? No. And here's why.

**The Questions:** The questions in this book are Mt. Sinai level. The SAT gods parted the skies, giving us a taste of what to expect from the new SAT. All the nuances, all the traps, all the idiosyncrasies are there for us to behold, and the more you understand them, the better prepared you'll be come test day.

However, there are a couple of caveats, some of which are big…

The practice questions in this book are available for free online, and, since the questions are by far the best thing about this book, you might rightly start to wonder whether you need to actually purchase this book. What follows might indeed convince you that you don't need the book at all.

**The Explanations:** Hi, I'm going to play pretend today. I'm going to pretend I'm the person or people who wrote the explanations for the questions.

*Choice (A) is the best answer because the information in the passage best supports (A). Line 11-13, <insert quote here> show this.*

*(B), (C), and (D) do not specifically answer the question.*

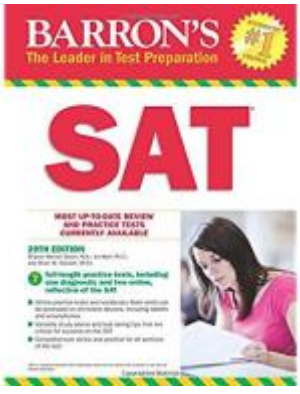
To be fair, the explanation of the right answer is often more thorough. As for why the wrong answer is wrong, forget about it. That is about as specific as it gets. In the end, you are likely to find these explanations laconic to the point of infuriation. This is problematic, since understanding mistakes is one of the best ways to improve.

**The Strategy:** I like the way the book breaks down the test so we can see what has changed since the old test. However, there is so much terminology that I imagine students getting bogged down thinking they have to know what nonrestrictive and parenthetical elements are, or that these needlessly complicated terms are known as "conventions of punctuation."

What we don't get is a solid explanation of grammar concepts and how they relate to the test. Nor do we get strategies on how to approach these questions. In fact, I feel like the first few hundred pages are more for people like me — people who want to understand how the test is constructed — and less for students, who need help understanding how to solve the actual questions.

**Verdict:** In sum, you don't need to buy this book. For review, students are much better off going with any of the major publishers on the market. For practice questions, there is no better source than the College Board, but the fact that they have made this content available for free online makes this book unnecessary, if not unhelpful. Now let's hope the clouds don't part and the College Board strikes me down with lightning.
**Grade: C+ (or 'R' for redundant)**

*Barron's SAT, 29th Edition and Barron's Strategies and Practice for the New PSAT/NMSQT*



How long do you think it would take your students to memorize 71 pages of word definitions in teensy-tiny type? Is there enough time before test day? No, and unless your students are looking for verbal help, you'd better look elsewhere. Other than those 71 pages, there's only about 60 pages of Reading test help here, and ditto for Writing and Language. Furthermore, Writing and Language is full of lists that made even my eyes glaze over. How helpful is a list of conjugated irregular verbs when you're studying for the SAT? Well…

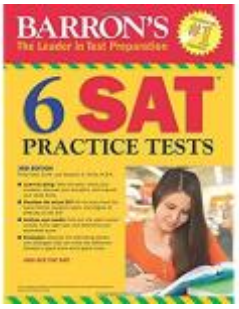
…Sorry, I just fell asleep there for a moment. Those lists are not helpful at all.

On the other hand, the math is great! The strategies are solid and helpful, the concepts are broken down well, and it hits that Goldilocks sweet spot of around 200 pages—enough to help enormously without being overwhelming.

Answer explanations are great on the practice *sets*, but less so on the practice *tests* ("A is the right answer because xyz. B is not the right answer because it is not xyz").

Finally, flashcards! This is exciting. There are lots of these at the end of the book that students can punch out, carry around with them and, maybe, look at from time to time.

**Verdict:** Math practice, here you come! Lists of definitions and verb conjugations, there you go!
**Grade: B**




*Barron's 6 SAT Practice Tests*

Usually a name to trust in the SAT test prep book world, Barron's has created a book of six tests that don't accurately mirror the real test and will likely cause more frustration than enlightenment.

**Reading Comprehension:** The editors seem a little tone deaf in their selections. This is surprising, since the College Board has been very clear about the types of passages it is using. It wouldn't *hurt* to practice with the passages in this book. But with so much out there in the SAT prep book world, why waste your time with passages that aren't reflective of the type of writing you'll see on test day?

**Writing:** Many of these passages aren't very well written. But that's not my biggest carp. Too many of the questions have debatable answers or flat out unfair answers (apparently the test writers want you to know that in a medical context "ambulatory" refers to doctors/nurses who travel out, and not "itinerant"). To make matters worse, the explanations are meager at best. A typical explanation looks something like this:

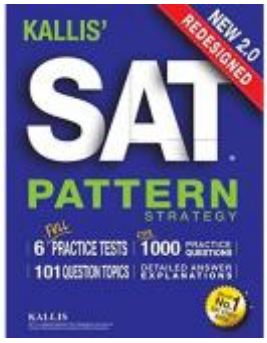
(A) is not grammatical. (B) is the most grammatical. (As for (C) and (D), they don't even mention them.)

**Math:** I want to say that any practice can't hurt. But the wrong kind of practice can hurt. Math problems at the beginning of a section that are harder than anything on the actual test are only going to hurt students' pacing. After all, the SAT is a performance test. You want material that accurately measures the section students will see test day. True, Barron's matches the content pretty well, but since the test skews difficult, most students are going to feel frustrated.

**Verdict:**

- The Good: The math content is good practice for high-scoring students, though the ordering of difficulty is so far off that I'd only recommend students pick and choose questions, rather than go through an entire section. This of course defeats the purpose of a practice test.
- The Bad: The content doesn't match up well with the actual test. The ordering of difficulty — how questions in the math section are ordered — is all over the place. The reading passages are more stylistic and less informative than the typical New SAT passage. And the writing passages are sloppily put together, with debatable answers.
- The Ugly: Since this book is supposed to serve as a series of practice tests, it fails miserably. Students who work through this book might—as often happens with subpar material—hurt their score, since the logic of some of the questions is so contrived that students could end up applying screwy logic to real questions. Never a good idea!

**Grade: D-**




*Kallis SAT Pattern Strategy*

Kallis is a bit of an enigma. I'd never heard of it before I saw its five-star rating on Amazon. From its website, it seems that they have a grand total of three books: this book for the New SAT and two TOEFL texts. Who exactly are they?

Perhaps more important, how is it that this amorphous newcomer was able to create a text for

the New SAT that far outdoes that of any other publisher to date?

Luckily, we don't really need to be able to answer that question to reap the benefits this book offers. The content review for each section is thorough, clear, engaging, and, most important, helpful. Of course, many publishers do content review fairly well. Where most flounder is in writing the practice tests. Kallis isn't perfect—it's exceedingly difficult to write questions that mimic the real test—but they do a respectable job.

Here are some minor quibbles:

1. The writing questions tend to be more difficult than those on the actual test and don't quite have the feel of those questions. Hard to put my finger on, which isn't necessarily a bad thing. Usually I can cite exactly how questions miss the mark — maybe because the other publishers miss it so widely.
2. The reading passages are sometimes spot-on. Other times they are too stylistic and more reminiscent of the old SAT. There also might be more of a focus on trap answers than on the actual test, but not in a way that would affect your performance on the real test.
3. The book does a great job in presenting the content students need to know for the new test. However, it doesn't do the greatest job at discussing strategies. For instance, it goes over the tedious and not-necessarily intuitive way of setting up complex equations rather than the tried-and-true way of plugging in values. Likewise, the writing section recommends always reading the question first instead of reading the passage first, or at least a paragraph at a time. I advocate for a nuanced approach, one that takes into account both tactics.
4. Word problems in the math section tend to contain far fewer words than those on the actual exam. The contexts used in the examples are often a little too relatable. Gone is the more esoteric fare of the actual test—bacteria in a petri dish, strength of a satellite signal, etc.
5. The breakdown of the math questions doesn't reflect the actual test that well. The last four questions in one section are geometry questions. That wouldn't happen test day.

**Verdict:** An all-around excellent New SAT prep book, one that is great for the motivated self-studier, especially one who aims to score in the top 20%. I intend to use it to tutor, which is a lofty compliment, given that I say this about very few prep books outside of the official materials. (Quick update: I ended up using this book for my class, and it turns out that quite a few of the writing questions have debatable answer choices, or at least wrong answers that aren't quite wrong enough. For that reason, I've lowered the grade from an A- to a B+.)
**Grade: B+**


It's an unfortunate truth that taking high-quality practice tests is vital to boosting your score on the SAT, but that finding good materials can be a challenge. Eight practice tests is a tempting offer. But eight mediocre tests…? That's a different story.

As with the Kaplan guide, the math sections here are far more reflective of the actual test than the verbal sections are. More question stems are longer, and there are more word problems than students may see on test day, but that's still good practice. After all, word problems just make students figure out how to set up the equations themselves, and that's not a bad thing.

In terms of the verbal sections (Reading Comprehension and Writing), though? One word: **scary**. Why? Where to start…

1. Kaplan hasn't mastered how the College Board now uses graphic stimuli in verbal sections. Their charts and graphs are *far* less complicated than the real test.
2. The verbal questions go back and forth. Either they're all on the easy end of the spectrum (no matter how Kaplan has classified them), or they're impossible to the point of being unfair, particularly when it comes to synonyms.
3. The Reading section also suffers from Kaplan's treatment of paired passages. The questions on these passages are both weak and scarce, particularly those asking students to consider one passage in light of the other.
4. This is a common problem in SAT prep books, but it's still a problem: Kaplan's guide has chosen nearly all its literature passages from pre-1900 sources. This is not reflective of the actual test! It makes sense from Kaplan's perspective — pre-1900 passages are open source and thus can be reprinted for free — but it's really not fair to test-takers, who will see a lot more modern material on the exam.
5. The new Reading passages about science on the SAT are going to challenge students in a variety of ways: terminology, concepts, use of data. Kaplan's science passages are better suited to the old SAT than to the new one.

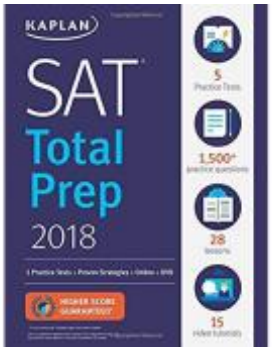
**Verdict:**

- The Good: I don't love anything enough about this book to call it "good." At a stretch, the math problems are okay practice for students looking for medium-level questions. One minor but helpful aspect of the verbal section is that in Reading Comp., the answer key provides sample "Passage Maps" to show students the kinds of notes they should be taking to answer questions well.

- The Bad: Almost everything verbal! Unrealistic use of graphs, particularly where science passages are concerned in Reading Comp; un-test-like questions and passages; a mixed bag of unfair and unchallenging Writing questions.
- The Ugly: One of the gravest sins here is that the book doesn't explain wrong answers at all. It shows you the thought process of arriving at the right answer, but this won't be enough for a lot of students (it wouldn't be enough for me!).
- The math's okay, if on the easy side; the verbal's atrocious.

**Grade: C-**

*Kaplan SAT Total Prep*

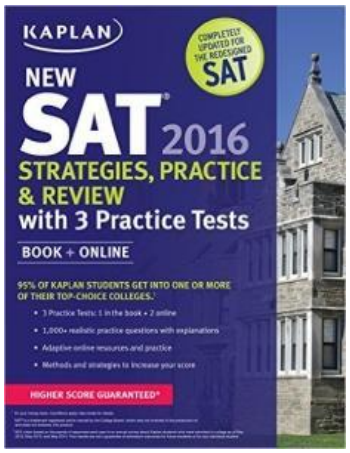



As I mentioned above, this book feels like what would happen (did happen?) if the folks over at Kaplan read our review of the 2016 book and went, "Oh, maybe we should change that. But…we don't really feel like it today." At first glance, you might think that it's a different book, but all they've done is change the order of the problems. At least 90% of problems and passages are the same as in the 2016 book and come with all the attendant problems.

**Verdict:**

- The Good: The practice test is different. However, I tried to get online access (as promised by the book) to the two additional tests, and…
- The Bad: The Kaplan website wouldn't accept my registration for the tests. This may have been a problem on my end, but it's worth noting that you have to give them a TON of info in order to get to those tests, even when it does work. That way they can put you on all those sweet, sweet marketing lists. For all I know, the new test in the book may be one of last year's online tests—or not. The registration process was just too complicated (and annoying) to get that far.
- The Ugly: Everything about 2016's book is still true of this year's, so take a look below.
- If you're going to buy a Kaplan book, it might as well be the 2018 edition, as there is a tiny bit of new info here. But, honestly, the verbal still isn't good, the math hasn't changed, and you may find that you don't end up getting all the practice tests you paid for.

**Grade: D**




*Kaplan New SAT 2016 Strategies, Practice and Review with 3 Practice Tests*

Kaplan has created a Jekyll and Hyde guide. On the one hand, there is an excellent math section. Kaplan really takes time to teach basic strategies. Students will understand many of the concepts before moving on to the practice questions—questions that reinforce many of the principles learned in the review section. I had typically avoided using Kaplan for the last SAT, since the content was too easy; students would often gain a false sense of confidence. In this book, some of the questions are actually more difficult—or at least involved—than the questions offered in the College Board book.

**Verbal:** But it's in the creation of the actual questions and passages where Kaplan just can't seem to bring it together. What that means for the student is that they are getting a test that doesn't really prepare them for the actual SAT. At best, questions and prompts are shoddy imitations of the real thing.

**Writing:** The essays that are part of the Writing section are supposed to be well-crafted pieces imparted in a strong, writerly voice. Instead, it feels like Kaplan had some hapless high-school student cobble together an essay. Gone is the sense of control and voice that even semi-professional writers can pull off. Sure, this sounds like a snobbish quibble on my part, but the truth is that this shoddiness affects the questions. Many are far too easy because the passage itself is too basic and doesn't lend itself to nuanced question types or tricky trap answers that are sure to be there test day.

**Reading Comprehension:** Reading Comprehension isn't quite so bad. Still, the passages are taken from textbooks, not reputable journals. What that translates to is a lot of dry passages, written at a level devoid of the more sophisticated prose and ideas the College Board expects you to be able to navigate. What you'll get—once again—is a section that looks like the New SAT Reading but is testing a comprehension level closer to that tested on the TOEFL test (that's the test for those who learn English as a foreign language).

**Verdict:** Use the Kaplan book for math strategies and practice; steer clear of the verbal.
**Grades: Math: B+, Verbal: D-**

*Princeton Review 500+ Practice Questions for the New SAT*


While I could easily fault this book for the lack of any content instruction, it would be unfair to do so, because the purpose of this book is to be a question bank. And on that level it scores a resounding *meh*. That is not to say it won't be of use to lower-level students (you can probably see where my review is going). The Princeton Review has created questions that, while perfectly legitimate, aren't quite as complex and nuanced as those found on the actual test. And you know what? That's not necessarily a bad thing—for those just starting off.

For many, that's exactly what will be happening on the new test. The question types and the format will be unfamiliar. The Princeton Review is a great introduction. Students won't feel quite as challenged and will be able to focus on the new format. Once they feel confident with the Princeton Review book, they can move on to College Board material.

I should make it clear that I'm not saying, "Oh, this book is *just* an easy version of the test." I'm saying it is an easier version of the real thing *and* it is a valid version. Unlike Kaplan's books, for instance, which—at least for verbal—are much easier than the real test in an inaccurate way, the Princeton Review mostly stays true to the underlying subtleties of the questions and answer choices. It just doesn't have the hard-level questions that make up 15-20% of the actual test.

Of course, you'll have to pick up another book to help with strategies and to review the fundamentals. Indeed, you'll need a book that also has practice tests, since this book is made up of just one drill after another. But as a companion guide to a book of strategies and fundamentals, this book is a great place to start.

**Verdict:** A great place to start drilling, especially if you are new to the test. But for practice tests and more difficult questions you'll need another book.
**Grade: B**

*Cracking the SAT Premium Edition with 7 Practice Tests, 2018*

Hey, want to learn a lot about SAT math? This book is a good place to start. It has almost 900 pages of material to review, strategies to learn, and practice sets to, well, practice.

What's that you say? Seems overwhelming? It is, a little. And if you're looking for practice on Reading or Writing and Language, the book does offer good advice and practice sets — just not very much advice and not many practice sets (think 50-75 pages).

Yes, students do struggle with SAT math, but there's no need to push it on them to the exclusion of the other sections. After all, you need to look at that composite score, too!

Otherwise, a pretty quality book.

**Verdict:**

- The Good: If you want a total math review with lots of practice, this is a great place to start. Unlike a lot of other books, the verbal here is pretty solid as well. In particular, the Princeton Review seems to actually understand the College Board's incorporation of graphs into the verbal section on the new SAT—a nuanced concept that few publishers get right. Also, the practice tests here are different than those included in the Princeton Review's *9 Practice Tests for the SAT*, so if you've bought both books, you'll really get your money's worth.
- The Bad: Some of the verbal advice is laughably obvious. For example, in Reading: "If you like to read novels and short stories, the literature passage may be a good place to start." Writing: "The most important thing about Writing and Language questions is that you *notice* those questions and then *answer* those questions." Oh, is that what I was supposed to do with those questions?
- The Ugly: If we're going to be *really* picky about it, there are only four tests here. The other three are online. If you're going online, why not use the College Board's official practice? Also, the actual test won't be online, so…And the title of the book has *7 Practice Tests*, in it when really it should really read *4 Practice Tests and Some Links*. But I'm starting to quibble…
- A great place for students to overhaul their math scores if they have a lot of time before the exam. Also worth looking into for the use of graphs in the verbal sections.

**Grade: B+**

*9 Practice Tests for the SAT, 2018 Edition*


Before we get into anything else, a quick clarification: The practice tests in this book are *not* the same ones that appear in the Princeton Review's *Cracking the SAT Premium 2018 Edition.* All commentary here applies to the "9 practice tests" book alone.

The math here verges on the easy side, but not so much so that it's unfaithful to the test. It's just missing those **tough** problems that you'll need to answer correctly for a 700+ sectional score. If you're looking to get your score up in the top percentiles, you'll want to supplement the tests with practice problems from books like the College Board's Official Guide.

The verbal sections here are also pretty strong. The science passages in the reading section are outstanding, and so is the Princeton Review's use of graphic stimuli in these sections. These types of problems are going to be a new kind of challenge for many students on test day, and here we have difficult, test-like problems! Woohoo!

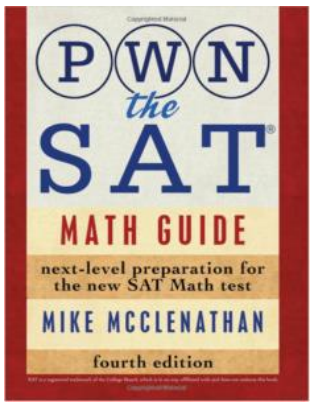
Answer explanations are also pretty good. The explanations of wrong answers are brief or even missing, but the clear explanations of why the right choice is right make this a relatively small issue.

**Verdict:**

- The Good: Great test items for the new verbal passages and problem types. (Fantastic charts and excellent science passages!) Great medium- and low-level math items. Clear explanations for all problems.
- The Bad: Students hoping to score above 700 in math will need to supplement their practice with some truly challenging problems, which they won't find here.
- The Ugly: Nothing truly ugly here!
- A good book for most students. For those hoping to score in the stratosphere (90th percentile or above), they might begin here, depending on where they are now, and move on to more challenging materials as they master these problems.

**Grade: B**

*PWN the SAT: Math Guide*



Many test prep books make the mistake of being dry—really dry. And that's a problem when your subject matter is already dry to begin with. Mike McClenathan steers clear of any such aridity, injecting a "hey-we're-in-this-together" voice as he takes the reader through all the important parts of the new SAT. And you never feel like he's writing this book to meet some deadline. It's clearly a labor of love. His affection for the material and the test comes across in nearly every page. But it isn't that he just wants to geek out on the material—he genuinely seems to care that students improve their scores.

That said, this book alone isn't enough to improve scores—though it is a good start. You'll want to make sure to complement it with the Official Guide (as the author encourages). Even then, I recommend a book like Barron's 1600 Math book so you can get lots of extra practice questions. The questions in the PWN book, while okay, don't quite impart the flavor of the current test. It seems that some of them are still steeped in the old-SAT style of asking questions.

Another issue is there is no indication of whether a question in a practice set is 'easy', 'medium', or 'difficult.' This is problematic because, often, the section that introduces the topic uses clear, easy-to-follow examples. Then there's a jump in difficulty in the problem sets, often because what you learned at the beginning of the chapter isn't enough to answer the harder questions. For students who are just starting out, they might get easily frustrated and think, as they are wont to do, that they aren't good at math. The problem sets would have been improved had they included easier questions and broken up the questions into discrete difficulty levels.

Luckily, the book gives us a clean breakdown of every question type in the Official Guide. That way, you can practice a concept on real SAT questions and have a rough idea of how difficult they are (the difficulty of these questions depends on where the question shows up in the section—easier questions are at the beginning; harder questions at the end).

**Verdict:**

- The Good: Overall, a strong book for the self-studier who needs an accessible refresher of the math tested on the New SAT.
- The Not-So-Good: The practice questions aren't that representative of the new test and tend be overly difficult for those who are weaker at math.
- The Ugly: Nothing ugly here!

**Grade: B**

*SAT Exam Secrets: Study Guide* from Mometrix Media

In my job as a book reviewer, I've never considered myself to be doing an ethical service. After all, I'm just advising which book to use and which one not to use. Apparently, this logic was turned on its head today as I read through Mometrix's SAT Exam Secrets Study Guide.

The only reason I even decided to review this book is because it was one of the highest-rated SAT books on Amazon, receiving five stars and nearly 100 reviews (it's since dipped to 4.5 stars).

First off, I believe this is the last time I will ever trust Amazon. They've clearly been compromised by reviewers who get free versions of a book for an "honest review." Rarely do I get this shrill—and I apologize if I'm coming across as abrasive—but the Mometrix book is so atrocious, so unworthy of more than a fly swatter, that I feel it is my ethical duty to warn others away from it. Especially when what is at stake is something as important as improving an SAT score. (I hope this review serves as a broadside against Amazon, i.e. a well-aimed kick in the butt).

So why is Mometrix so awful?

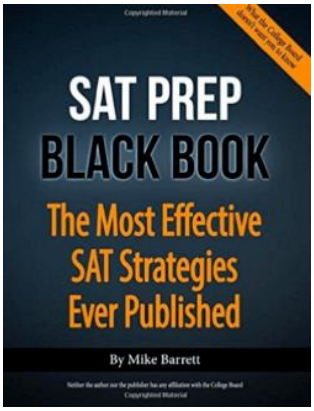
1. Annoying, ingratiating tone (think of the car salesman who puts his arm around your shoulder and calls you buddy).
2. Sentence Completions, which even my grandmother knows are no longer on the SAT, are included. (An aside to you Mometrix people (assuming you are not evil robots): my grandmother can write better questions than this—and she spoke broken English.)
3. Nothing about the Reading Comprehension section questions is valid. The questions ask, "What is something that the passage talks about in line 3?" And then they give you four answers (at least they got that right) followed by an answer that is lifted *word for word* from the passage.

   How hard is it to realize that there are evidence-based reasoning questions and that they look a certain way? Or vocabulary-in-context questions? A fourth-grader could at least mold the question—and arguably write a better question than what's in here.
4. You are teaching formulas that nobody will ever have to use on the SAT math section. (Mometrix, did you even take the SAT? Have you ever cracked open an SAT prep book?)
5. In discussing grammar, it behooves a prep book not to have glaring grammatical errors on nearly every page (sometimes every paragraph) of the book.

6. There is nothing wrong with organizing information in readily consumable chunks. Mometrix feels that it is okay to dump information into poorly organized and poorly formatted paragraphs (I'd rather read the New York City phonebook).
7. Mometrix, did you realize that the SAT contains a 44-question grammar section? You might want to include it in your next edition. Actually, do those hapless high school students—whom you bamboozle with this travesty of a book—a favor by never releasing anything into the world again.

**Verdict:** Amazon, say it ain't so.

**Grade: UA for utterly atrocious**




*SAT Prep Black Book: The Most Effective SAT Strategies Ever Published*

An SAT student favorite. We aren't reviewing the existing SAT Prep Black Book by Mike Barrett here because it is for the old SAT. If the publisher does revise the Black Book for the New SAT, you can count on our full book review here!

# Additional Test Prep Resources

### Magoosh SAT YouTube Channel

We help your students ace the SAT with short, informative videos that aren't totally boring to watch. :) Go to MagooshSAT on YouTube to check us out.

### ACT Prep Resources

We all know that the ACT and SAT test are pretty different from one another: different formats, different scoring, different subjects tested. However, for those preparing for both exams, they'll start to notice that there is quite a bit of overlap when it comes to required skills.

Don't think about the two exams as the ACT vs. the SAT, but as more of an ACT/SAT venn diagram. They share a lot of content, especially at a basic level.

So, with that in mind, feel free to use some of Magoosh's free resources to brush up on your basic skills:

- ACT Flashcards: To improve general math and grammar skills.
- SAT Math Formula eBook: For brushing up on basic math skills.

## The College Search

Not sure where to begin when helping students with the college search? Are they feeling completely lost and confused?

Well, guess what? In my humble opinion, I think that means you (and they!) are actually one step ahead of the game.

Despite all the talk out there about a "college search," the vast majority of college applicants never truly "search" for a school themselves. They make a list of colleges their friends like, their parents like, their counselors like, or simply schools they've seen on t-shirts or on TV. I was one of these students. I never looked outside of my own backyard, and when I started learning about all the amazing colleges and universities that are out there later on? Boy, did I have some regrets.

So, first, pat yourself on the back just for getting started helping your students find the right college for them.

Now, let's talk about how you help them can find what they need. Below are the steps students should take when figuring out a school - share these with them to get a solid start!

### Step 1: Take an Inventory of Yourself

*Ask yourself these questions*:

- What do I like and dislike about my current school?
- How do I learn best?
- Do I like to study alone or with a group?
- Do I like to have personal interactions with my teachers?
- Do I like socializing in large or small groups?
- Does climate have a serious impact on me?
- Do I need to be close to home?
- Do I like to be involved in a lot of activities?
- Do I need school spirit? sports? theatre?

There are so many questions to ask and lots of resources for self-assessments out there. One that we particularly like is on schoolbuff.com. Taking stock of what you want and need will help you know what to look for as you research schools.

### Step 2: Establish Your Must-Haves

Take a look at the following list of criteria and determine what your requirements are for each category. Are there any deal-breakers? Are there any you don't have particularly strong feelings about? Be careful of eliminating anything you aren't sure about at this point: If you've never seen a small liberal arts school before, how do you know you don't want to go to one? If you don't know, then make some college visits before you rule anything out.

*Curriculum*: Have you already decided on a major to pursue? Do you want to make sure you have options? Do you want to have a core curriculum or total freedom? Do you want to double major? Do you want to design your own major?

*Location*: Is it important for you to be close/far from home? In a certain geographical region or climate?

*Size*: Small? Medium? Large? Mega? Don't forget to consider the size of the individual program you are looking at, not just the whole school.

*Resources*: Do you need specific resources for learning needs or psychological, social, or medical concerns? Desire a strong cultural or ethnic group support network? Want robust internships or research opportunities?

*Activities:* What types of activities are you interested in participating in in college, both on and off campus? What type of leadership, service, study abroad, etc. opportunities would you like to pursue?

*Cost and Financial Aid*: How much can you/your family afford to pay for college? What level of financial aid do you need?

### Step 3: Research, Explore, and Visit

Once you've determined what you're looking for in a college experience, you can begin exploring schools that meet your criteria. College Navigator and College Scorecard are good tools to launch your college search based on the criteria you've established. (You can also check out our list of the best free online resources for your college search below!)

Once you've developed an exploratory list, lay out a plan for visits. If you don't have the time or means to visit colleges far away, pick a selection of different types of schools within a day's drive. Plan out a handful of weekend trips to visit two to four schools each weekend (any more and they'll all start to run together in your mind).

For the schools you can't visit (and even for the ones you can), do research online, get on mailing lists, visit with the rep when they come to your school, talk to current students and alumni, and go to college fairs. Learn as much as you can!

### Step 4: Refine Your List

Once you've explored, refine your college list. The length of this list can vary. Some students have three or four schools, others have fifteen. Whatever you do, make sure to cover your bases. You should have a balance of good bets (schools you have more than a 75% chance of getting into, based on your GPA and test scores—your guidance counselor can help you evaluate these odds), targets (schools you have a 25% to 75% chance of getting into), and reaches (schools you have less than a 25% chance of getting into).

### Step 5: Express Your Interest

Now that *you* know which schools you are interested in, make sure *they* know it too! Take advantage of opportunities for interviews and meetings with representatives and alumni; get on their mailing lists. Even if these contacts don't seem to lead anywhere, when it comes time for your application, you will be able to check off all sorts of boxes that show your demonstrated interest in the school. Also, your essays will reflect your effort.

Go to each school's website and find the admissions representative who will be reading your application (sometimes this is based on the alphabet or geography, sometimes on other criteria). This person is going to be your contact throughout the admissions process. Definitely don't pester them, but don't hesitate to reach out if you have important questions or if you need to follow up with information regarding your application.

Remember, this is YOUR college search! All sorts of people–from your parents to your friends to your teachers–are going to have their own thoughts about it. Listen to them, but don't be swayed by the opinions of others. If you have a better sense of who you are and what you want in a school, you'll be much less likely to fall into this trap and far more likely to fall in love with your chosen school once you get there.

## Free College Search Resources

Fortunate college applicants of the Internet age! They have so many resources at your fingertips to find the right schoo! Here are 10 of our favorite free resources for an online college search.

**College Scorecard:** A user-friendly and engaging tool to search for schools from the U.S. government College Affordability and Transparency Center based on a range of criteria. You can also find out how much the average student pays for a school, how much they borrow, and graduation and employment prospects.

**College Confidential SuperMatch:** A search tool that uses 20 criteria (attributes such as location, major, diversity, special services, and party scene) to help you find the right school for you. It uses a "fuzzy" approach to ranking schools based on your preferences, meaning it finds not only the perfect matches, but also the schools that are pretty darn close.

**College Navigator:** Not quite as fun as College Confidential's tool, but an authoritative one, hosted by the National Center for Education Statistics. You can search for schools by criteria, compare them side by side, and pinpoint school locations on an interactive map.

**Big Future from the College Board:** Another well-respected search tool. Of particular note is the ability to find schools based on test scores, those that offer academic credit for advanced high school courses, and those that meet financial aid needs.

**U.S. News and World Report Best Colleges:** The most famous national source of college rankings, highly anticipated each year. You will need either a website subscription or to buy the magazine for full details on the rankings.

**Colleges that Change Lives:** A non-profit organization promoting a small group of liberal arts colleges supporting a student-centered college experience. It also has numerous quality resources for a general college search.

**Best Colleges:** Uses compiled information from various sources to rank colleges on specific features (for example, online colleges that offer free laptops, tuition-free colleges, and colleges with lowest out-of-state tuition)

**eCampus Tours:** Offers 360-degree virtual tours of 1,300 campuses.

**College Week Live:** A virtual college fair. Live chat with admissions representatives and students at 300+ colleges and universities.

**Niche (formerly College Prowler):** Aims to provide the "real dirt" on colleges. Students review aspects of the college experience at their respective schools, such as the sports scene or campus food. Lots of information, but take individual student opinions with a grain of salt.

**Unigo:** Similar to Niche. Compiles student reviews on various schools.

# Intro to Financial Aid

For high school seniors everywhere, navigating the ins and outs of financial aid can be completely confusing. So many deadlines, so many forms, so many weird acronyms that would make interesting band names (FAFSA NATION, anyone?).

In all honesty, everything can get a bit overwhelming. In this section, we'll try to guide you through the basics of the process step-by-step.

But first of all…

### Why Do Students Need Financial Aid?

Even for those who grew up in a financially comfortable environment, college is a wallet demolisher. Costs not only include tuition, but room and board, textbooks, personal and travel expenses, and well, you name it. It's expensive! More and more students these days are graduating with enormous amounts of debt—debt that would not exist in such considerable quantities if more people had known how to maximize the amount of financial aid they were eligible for.

There is a nifty calculator on finaid.org for calculating how much financial aid a student could qualify for based on EFC (Estimated Family Contribution). Even if a student doesn't think she will qualify for much aid, she should try anyways. There really is no risk involved.

Financial aid can come in the form of institution-based financial aid, given out by the school; federal aid; and separate scholarships run by private organizations. They are all important, and they can all save students from becoming bankrupt, becoming homeless, and living in a cardboard box crying over a framed diploma.


*Image from speedbump.com*

**Deadlines**

The FAFSA, CSS, scholarship applications, Cal grants, tax return information…there are so many forms to send in! All colleges usually have a specific deadline as to when they'd like to receive these.

Before starting any of this process, it's important to write down all of the deadlines for all of the schools a student is applying to. When mailing material in, deadlines are usually a lot more flexible—but it's still important to get all of the materials mailed in on time.

For a lot of colleges, these forms are due at the beginning of February. Other colleges have deadlines toward March, or even April and May. If a student can't find deadline information for one of his colleges, have him call the Admissions Office! It won't hurt to check.

## Financial Aid Forms and Documents

### 1. FAFSA

The most popular and well-known form is the infamous FAFSA. It stands for the "Free Application for Federal Student Aid," which basically explains itself. It's completely free, and once a student enters in all financial info and submits the application, he can receive an estimate for how much the government can provide. This application is nice, because the same form is submitted to all of the schools.

Within a few weeks of submitting the FAFSA, a paper Student Aid Report will be mailed out, detailing information from the FAFSA and a student's Expected Family Contribution. If the student also provided an email, he'll receive a link to his results after just a few days.

Overall, the FAFSA is a bit faster and easier to complete than the other major financial aid form…

### 2. CSS

The "College Scholarship Service" is not required by every school—in fact, many schools *only* require the FAFSA! There are about 200 colleges, however, that do require the CSS Profile. These colleges include a lot of the most competitive schools, like the Ivy Leagues. Students need to check with their schools to see if they require this form! Otherwise, they might be missing out on a huge portion of financial aid.

Using information provided on the CSS, they will compute how much institutional aid you are eligible for. If the Estimated Family Contribution is less than the college's tuition fees, students can qualify for need-based financial aid.

The CSS Profile is run by College Board, and in case the College Board hasn't milked your students' wallets enough already, there is a $25 application fee and a $16 fee for every additional school. If students are applying to 10+ schools, we sympathize with them.

### 3. Institution-Specific Forms

There are some schools like Princeton and the University of Pennsylvania that have their own separate financial aid forms as well. For Princeton, students who already submitted a CSS form can sync the information from CSS to Princeton's own application form to make the process quicker. These institution-specific forms can be difficult to find. Make sure students know if any of their schools require this!

**4. Cal Grants**

If any of your students are applying to any school in California, make sure they have this done! Cal grants offer financial aid/grants to anyone attending a California university—and according to its website, they can receive up to $12,192 in financial aid that they don't have to pay back. All they have to do is fill out the FAFSA and have a counselor fill out a GPA verification form. The deadline is normally early March.

**5. Tax Returns**

This is a particularly annoying part of the financial aid process, but it's necessary nonetheless. Lots of schools require copies of student tax returns in order to verify the imputed information. This means the entire tax return packet: all forms and schedules included, signed by both of a student's parents. College Board has a nifty service called IDOC through which they can send these digitally. Students can also make copies and physically send them out to colleges, but this is very labor intensive.

## Scholarships

**Guaranteed Scholarships**

Sometimes, students can receive an institutionally based scholarship just by sending in an application. Many colleges around the country offer guaranteed scholarships. These scholarships are automatically awarded to accepted students who have earned a certain minimum SAT score. The cool thing about them is that students don't even have to fill out a separate application. When researching colleges, students should keep their eyes open for what guaranteed scholarships are out there.

**General Merit Scholarships**

This is another type of student aid which is awarded based off of academic, athletic, musical, etc. achievements, rather than family situation. These scholarships usually have the same minimum SAT score requirements, but students are in competition with other accepted students for a limited number of awards. These scholarships may require a separate application, along with a personal or themed essay. In short, students need to read those directions closely! Unfortunately, most of the elite colleges in the U.S. do not offer academic merit aid (and only offer need-based aid), so this is considerably less common.

**Private Scholarships**

There are tons of other scholarships out there that require a little bit more initiative on the student's part. Students need to look up scholarships that are being offered locally, or scholarships that pertain to their demographic, career goals, major choice, etc. Forbes has a nice list of 10 highest-paying scholarships for college. But students need to be limited to just those! Proactive students should cast a wider net after exhausting their college list.

Here are just a brief sampling of the scholarships that aren't affiliated with any specific academic institute:

- Burger King James W. McLamore WHOPPER Scholarship
- Coca-Cola Scholars Foundation
- American Fire Sprinkler Association Scholarship
- American Board of Funeral Service Education Scholarship

**Using SAT Scores**

The great news is that students may be able to use their SAT scores to earn these scholarships. The biggest factors are going to be how strong their scores are and where they decide to go to college. Because every scholarship's requirements are different, students have some work to do in getting out there and finding some scholarships!

Many colleges and universities have specific scholarships available for their current and incoming students, so if a student has a list of schools she's interested in, a simple Google search for her top college choices along with the search term "merit scholarships" (as we've already briefly touched upon) is all she needs.

Scholarships based on academic merit often have minimum SAT scores provided in their descriptions. Studnets need to take note of any SAT score requirements they find during research, then average all those scores. The result is **a minimum** SAT score goal.

Here's a ballpark estimate, to give you an idea of what students are dealing with: At private institutions, such as Baylor University, one scholarship awards approximately $41,000 per year with a minimum SAT score of 1390. At William Woods University, a student could receive four years of full tuition, room, and board with a minimum SAT score of 1360. (There are other requirements for these scholarships beyond a minimum SAT score, so again: read those directions.) The amount of scholarship money available varies widely between schools, but students looking at private colleges and universities are likely to see these kinds of numbers.

Having a specific score in mind will help students focus their SAT prep, but shouldn't forget that this score is a *minimum*– ideally they want to be scoring a bit higher than this number on practice tests (and the real thing, of course!).

Once a student has a strong SAT score under his belt, he can shift his focus to the scholarship applications themselves, and any essays and/or personal statements that may be lurking within.

**Takeaway**

This chapter does not cover all of students' financial aid options by far, but hopefully it helped clear up the process! It's tricky, but in the end it will definitely be worth it.

Don't let the cost of college get your students down. With the right financial aid, they can do anything.

# Epilogue

Congrats on finishing the Magoosh eBook! You now have everything you need to help students get out there and conquer the SAT, getting the best score so they can get into their top choice schools.

So what next?

Well, the main thing you'll want to do is to get students started with **study schedules**, then assign them lessons and practice tests! You can return to those sections as needed to refresh your memory on strategies and drills for different sections and question types.

Remember, you can always come back, so don't think you need to keep all 250 pages of this eBook in your memory! With smart practice, you'll start to integrate a lot of the techniques we've discussed here into your instruction anyway, but it's always good to have a quick refresher as needed. And if you're looking to expand your test-taking resources, you can always head back over to the Resources section!

And don't forget to keep up with us on the Magoosh High School Blog, where our experts are always adding new and helpful information to help you master the SAT!

Great job—and happy prepping!

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