Magoosh's Complete Guide to the SAT

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Introduction

This eBook is meant to serve as a roadmap that provides a fun overview of the SAT, combining crucial information on test structure and question types and providing essential strategies and tips for doing the best you can on test day. The information in this eBook is a synthesis of some of the best content on the Magoosh SAT blog. If you're just getting started with the SAT, and want to know what to expect and how to prepare, this eBook is for you!

If you're reading this eBook as a PDF on a computer, 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 in-depth study material, head over to the Resources section!

The Magoosh Team

Who is Magoosh?

Magoosh is a group of passionate educators in Berkeley, California.

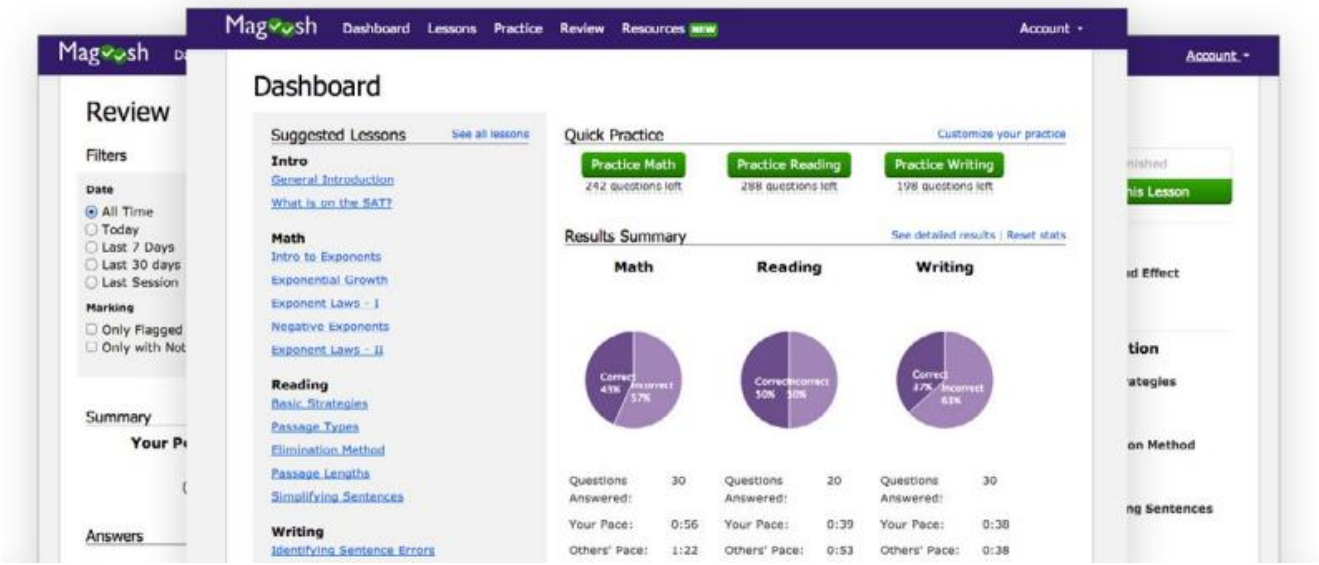
Email us at help@magoosh.com if you have any questions, comments, or suggestions!

About Us

What is Magoosh?

Magoosh is an online SAT prep course that offers:

- 140+ unique lessons on all SAT subjects
- 700+ Math & Verbal practice questions, with video explanations after every question
- Material created by expert tutors, who have in-depth knowledge of the SAT
- Free vocabulary flashcards online and through our Android and iPhone apps!
- Access anytime, anywhere from any internet-connected device
- 150-point score-improvement guarantee
- Email support from experienced SAT tutors
- Customizable practice sessions and quizzes
- Personalized statistics based on your performance



Featured in

Mashable · San Francisco Chronicle · Xconomy · wiredacademic · The Telegraph · KTVU · The Wall Street Journal · The Boston Globe

What Students Say About Magoosh

These are survey responses sent to us by students after they took the SAT. All of these students (and many more) have used the Magoosh SAT prep course to improve their scores:

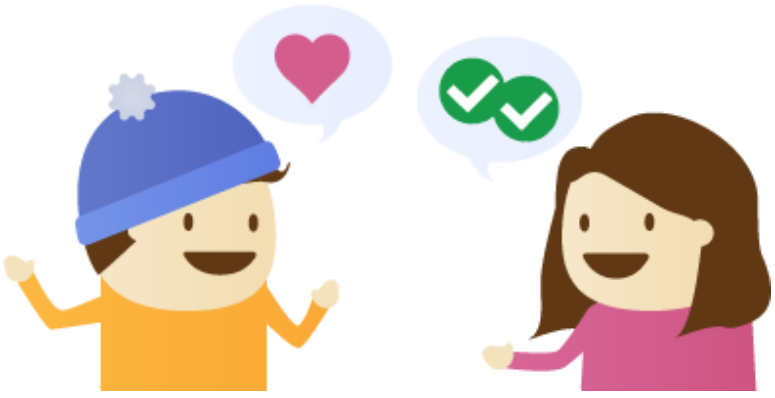
"It has given me great preparation for hard questions on the SAT. It's an amazing way to practice hard questions that you rarely find, and the answer explanations are amazing."

"Unlike others out there, Magoosh has all the helpful, easy-to-comprehend video lessons. It helps a lot just by watching them."

"I loved the videos and all the practice questions. The practice questions are all at (what I feel is) a harder level, which really helped with level 4 and 5 type questions on the SAT. I have improved my English grammar skills significantly and excelled through lots of the practice questions. I also really love the videos at the end of each question. (: "

"Magoosh has not only helped me refresh for my upcoming test but also taught me some cool new tricks for quickly solving problems in all subjects. I would recommend Magoosh to anyone who wants to feel confident on the day of their test."

"I used the product to prepare me for taking the SAT and even though I had taken it before, I was still very much informed on many things I did not know about the test."



Meet the Authors

Chris Lele

In his 12+ years as an SAT tutor, Chris Lele has worked with hundreds and hundreds of students, helping them become better at the SAT (and in many cases turning them into SAT-killing machines). When Chris is not busily tutoring away, writing fiendishly difficult (and not-so-difficult) test prep questions, or devouring dictionaries, he enjoys running, spending his time with his family, and watching Jeopardy.

Lucas Fink

Lucas Fink's years teaching the SAT have taught him to love the test in a way he'd never expected, and he hopes he can pass the joy of the challenge on to his students and readers. He is a lifelong writer, a choosy reader, a persnickety editor, and a puzzle enthusiast.

Intro the the SAT

Introduction

You probably first heard the letters "S-A-T" uttered with fear sometime around middle school. You may have thought at the time, "What's so bad about Saturday?" Since then you've heard a lot about this test — none of it very good and, perhaps, not all of it accurate.

I hope to dispel any myths and misconceptions about the SAT, as well as take away some of the dread you're probably feeling. So let me start off with a grand statement, one that informs this entire book: **The SAT is a very learnable test.**

To see that this is indeed true, you'll have to apply the tips and strategies mentioned throughout this book. You don't want to read this book and not do any practice; rather take practice tests and incorporate what you've learned. Before your very eyes, you'll see your score improve, and you'll become a firm believer in the truism that the SAT is learnable.

At this point, I should probably introduce myself* (I wouldn't want to become the shadowy SAT voice!). My name is Chris and I've been an SAT tutor for many years. Lucas and I wrote this eBook together. We've worked with all different kinds of students and have gotten a sense of how most people's brains work and how the people who write the SAT use your thinking processes against you.

Each summer, I put my trade to work on a fresh crop of about 20 students. And each year, I learn more about how students think and how I can make them ever more masterful at conquering the test. I also learn — once again — that the SAT is very learnable: there will usually be a student who improves by 500 or so points, and one who gets close to a perfect score.

So pardon the trite reminder, but remember: you can do it! But also remember that you'll have to apply what you learn in this book, and keep coming back to this book to fine-tune your approach. Within a few weeks — or even less! — you'll have increased your score.

Changes Coming in 2016

SAT-wise, all the talk these days seem to be about the New SAT — and with good reason. In the spring of 2016, the test will undergo its biggest changes ever. In fact, it's going to be so different that it will look like an entirely different test.

Imagine a test with no Sentence Completions. The only time you'll get scary vocab is in reading passages, and the questions will never really be about that vocab. Sure, reading passages will still be a part of the test, but the questions don't appear to be quite as tricky.

Math is going to be a different beast, too. An increased focus on algebra equations and higher-level math, together with graph-based questions, will make the test harder for some.

Finally, the essay will be optional. That's right: you do not *have* to write an essay for the SAT. But before you flunk two grades just so you can take the 2016 SAT, it's important to note that many schools will require an SAT essay score (so, really speaking, the new essay will be "kind of optional").

For now, the focus is on the current SAT; and this guide is aimed to help you do really well on that test.

Is the SAT learnable?

At this point you may want to throw up your hands in defeat, thinking, *an IQ score is based on one's intelligence and can't be changed. So, if the SAT is a cousin of the IQ test…well, I don't want to be invited to the family reunion.*

But I'm here to tell you that the SAT (and even the IQ test) is learnable and your score is not something etched in stone (like the color of your eyes).

To debunk the myth that SAT scores don't change, I have ample experience from over the years. Just in my latest "crop" of summer SAT students (of which there are only a dozen in my class), one went up by over 200 points, placing him into the 2300 territory. Another increased a total of 480 points. That's like going from a pretty strong student to a "termite"—something Terman thought impossible. (You can read more about Terman in the Appendix at the end of the eBook!)

Since I hovered over these students for hours each day during the summer (oh, poor hapless souls!), I can tell you that their success was not derived from some pact they made with a hooved gentleman or that they have this rarefied—and unattainable—quality called genius. They simply paid attention in class, did all (or at least most) of the homework, and asked useful questions throughout the process. And they sat for an SAT practice exam each week, much as an Olympic runner leading up to the big day will run a race each week. Basically, they worked hard.

So if someone tells you the SAT is a glorified IQ test that can't be gamed, give them a little historical recap of Terman. And, if you really knock the test out of the park, which I know you can with hard work, tell them you are living proof that the SAT is very learnable.

How can I increase my SAT score?

You know how if you take most of the summer off, hanging out and what not, that in those first few weeks of school your brain is, ah, sort of slow? Well, that's not surprising. Your brain hasn't gotten a mental workout and so has lost the edge it had when you were preparing for finals.

With the SAT, you not only have a new subset of knowledge — tough vocabulary, esoteric grammar rules, and dense, academic reading passages — but you also have question after question, section after section. Your brain, even if it is in generally good shape, is going to get fatigued. So just as you feel slow those first few days after summer, you may feel slow those first. Unfortunately, many students don't see it this way, and think, "Oh, I'm so bad at the SAT". Instead, they should be thinking, "Well, my start point is not where I'd like it to be, but with just a little bit of work, I should be able to increase a few points".

This positive attitude is paramount; without it you may not be able to change.

The reason the SAT is learnable is that you are training your brain to remain focused for four hours at a time — something that you probably don't have much practice doing unless you are an avid reader. Improving focus is something that will come naturally with practice.

Of course, you must learn how the SAT is written: the way it makes it so that one answer choice is right and the others is wrong, and the way it carefully places traps throughout the test. You will also have to increase your vocabulary, learn how to attack long reading passage, brush up on your math fundamentals, and about a dozen grammatical rules. But again all of this is very learnable with a little bit of hard work.

What's on the SAT?

You've probably heard that there are tricky math problems, boring (like, really boring) reading passages, lots of vocabulary words (words your parents don't even know), and an essay. While knowing that is somewhat is helpful, the following gives a more specific breakdown of the test. Of course, once you've done a few practice tests, you'll be familiar with the layout of sections and what's in each section.

Section 1: The SAT Essay

You will have 25 minutes to craft a response to a question.

Sections 2-9 (in no particular order):

- 3 Math sections
- 3 Critical Reading sections
- 1 Writing section
- 1 Experimental section

The SAT Math Sections

20-question section (all multiple choice)

16-question section (all multiple choice)

18-question section (10 "free response" questions)

The SAT Critical Reading Section

(Mix of Sentence Completions and Reading Comprehension questions)

Two 24-question sections

19-question section

The SAT Writing Section

One big 35-question section

A 14-question section that is always the very last section on the test, Section 10.

The SAT experimental section

This one will probably blow your mind — it doesn't count towards your score. But the SAT people (The College Board) have to find a way to measure the quality of questions, so what better crop of students than those currently taking the SAT?

The twist is you the student can't know which section is the experimental section—or every student would just use that time to take a much-needed nap. So the experimental section can be a math section, a verbal section, or the 35-question writing section. Again, do not try to guess which one is the experimental section. It's a one in three chance of guessing right and if you guess incorrectly, well, your score will take a big hit.

Scoring and Pacing

In these last several pages, you've probably learned several surprising facts. Not to be outdone on the "surprise index" is the following tidbit: every question on the SAT is worth the same number of points.

That's right, the very first math question that the 6th grader down the street could get right, to the one of an upside down pyramid that would confound a team of Cal Tech scientists. This pattern holds true across every section. Whether the correct answer is "disingenuousness" or "notable", you always get the same number of points for answering it correctly. .

Go for the low hanging fruit

So how does this fact affect your pacing? Well, imagine a giant apple tree with apples of the exact same quality scattered throughout its mighty branches. Would you climb to the very top branch to get the exact same apple that you could easily fetch from the lowest branch? Well, the answer is "yes", only if you've already plucked all the apples from the lower branches. Essentially, you would work your way up the tree, picking the hardest-to-get-to apples only once all the other apples are exhausted (all this is assuming you run an apple pie business).

In the same way, you don't way to spend your time wrestling with the most time consuming questions, which are typically the difficult questions. The good news is the SAT has given us a nifty little way to determine the difficulty of a question: the higher the number of question, the harder question. Question #1 in math will be really easy and the last question of the section will be very difficult. There isn't always a perfect matchup between question number and difficulty. So question #10 might be harder than question #12. But question #14 is most likely not going to be harder than question #9.

Don't forget…

An important point: there is no relation between the question number and the difficulty for reading comprehension passages. The easy questions can be at the end, in the middle, at the beginning, or on some passages, entirely absent.

The next important point: within each section, if there is a different question type, the difficulty level "resets". For example, in the Writing Section there are these sentences with one long underlined portion. As soon as that section ends at question #11, and new question type begins at #12. #11 will be hard; #12 will be very easy.

So do the easy and medium questions first, skipping around question types within a section. For instance, on the Critical Reading section don't knock yourself out trying to answer the last couple of questions. Save time—and brainpower—for the reading passages.

Guessing on the SAT

One of the first things people learn about the SAT is that you get penalized for guessing. While this is true, it ignores a very important fact: **guessing only works against you if you have absolutely no idea what the answer is.** As long as you can eliminate at least one answer choice, guessing works — albeit slightly — in your favor. And the more answers you can eliminate, the more guessing will work in your favor. On the other hand, not guessing on questions in which you can clearly eliminate a few answers can make a 50-60 point difference on your final score.

Another important fact: there are very few questions in which you are truly clueless on. The reason I mention this is many students refuse to guess, claiming that they have no idea. When I prod them, they tell me that there is no way a few answer choices could possibly be correct. Yet when they say they have no idea, they mean they have no idea what the answer is. So think of the SAT not as getting the right answer, but eliminating the wrong ones.

Finally, many students claim that, when guessing between two answer choices, they always choose the wrong one. In reality, students tend to be very selective in their memories, remembering when they guess incorrectly, not when they guess correctly. **So always guess if you can narrow it down to two answer choices.**

The math of guessing

To show you how guessing works, here is a little table. First, I should mention that the $\frac{1}{4}$ of a point is the penalty deducted for guessing incorrectly (getting the question wrong).

The nifty formula to work this all out is the following:

Total Score = # right - $\frac{n}{4}$. 'n' is the number of questions you missed.

For each of the scenarios below, I'm going to use $n = 20$. For instance, let's assume you'll guess randomly on 20 questions. The probability of randomly guessing correctly when you can't eliminate any answer choices is 20%. 20% of 20 = 4 = the number of questions you probably got right out of the 20 you guessed on. That means you missed 16 questions. Plugging this into our formula we get, $4 - \frac{16}{4} = 0$.

(Hence, guessing randomly doesn't really hurt your score).

Number of answer choices you can correctly eliminate	Probability you'll guess the right answer	Net points you'll gain or lose
Eliminate no answers (guess blindly)	20%	0 points net gain
Eliminate one answer for sure	25%	1 point net gain
Eliminate two answers for sure	33%	4 point net gain
Eliminate three answers for sure	50%	8 point net gain

n = 20 is a pretty good estimate for the number of questions a decent student is likely not to be 100% sure of in the Critical Reading section (there are a total 67 questions in this section). Let's say one student is utterly petrified when it comes to guessing and will choose an answer only when he is 100% certain. Another student, by contrast, will always guess.

In both cases, let's say each narrows down to two answers (assuming one answer is the correct one). The student who guesses will have an 8-point gain. On the Critical Reading section that more or less amounts to a 100-point difference. That's the difference between a 520 and a 620. In other words, not guessing will clearly hurt you.

So that's amazing news! No need to freak out any more about the stupid penalty score. It'll only hurt you if you don't guess.

SAT Vocabulary: Friend or Foe?

Ah yes, the bane of every SAT student: vocabulary. Even to this day, people my age (and I'm probably twice as old you) still accuse others of using "SAT words" when a large word like *prodigious* happens to slip into polite conversation. Unless you go into writing as a field, are an avid reader, or are firmly set on the grad school path, there are certain words on the SAT that you will probably never see again. So it is not surprising that there is a certain stigma against big, Latin-sounding words. Yet the SAT is also filled with words that you will encounter in everyday life—especially if you plan to go to college (which, since you are reading this, I assume you do).

SAT vocab as prep for life

So one way of looking at SAT vocabulary is that you are learning important words such as *rhetoric, indifference, bolster, denounce*—words that will make all that reading you'll do in college much easier.

Another way is to think of learning vocabulary as a game, one at which you'll have to work hard, but that will have big payoffs. Every game entails having fun. So look at a word and see if it triggers any random associations. Does *deleterious* sound like delete; does *avuncular* remind you of a friendly uncle; does *lambaste* conjure up a picture of an angry ungulate (or hooved-animal) criticizing you? This one mere technique of making wacky associations will already make you better at memorizing words; do not simply think of vocabulary as having to sit in front of a massive word list, going down each word, one at a time. Your brain will fall asleep, you will not learn, and you will walk away hating vocabulary.

Helpful learning techniques

Other important techniques include using words throughout the day. Come up with a short story, write silly little song lyrics, call a friend a *curmudgeon*—it doesn't matter, as long as you are having fun ("use it or lose it", as they say).

Finally, don't try to memorize too many words at once. Break up words 50 a week, to give your brain time to absorb them. Of course, if you don't have that much time, don't despair. Learning 250 high-frequency SAT words, something that, with a little work, you can do in a couple of weeks, can do wonders to your verbal score come test day.

How to Study for the SAT

The SAT is not like your regular midterm; you can't just cram for the test. At the same time, you don't want the SAT to intrude in your life so much that other stuff intrudes. That statement of course is very relative, since for some three hours is an unpardonable intrusion. On the flip side, there are those who will take SAT prep classes for years.

There is no magic number, but I'd say learning the test over the summer—whether at home or in a prep school—and taking the test in October is a good way to go about it. Even if you don't do well, you can retake the test. The second time around you will already have a solid foundation. You may only need about four weeks to ramp for test day. In that time, you should take at least three practice tests. The good news is Magoosh has plenty of different study schedules, whether you are the all-summer-long student or the weekend crammer (again, we wouldn't recommend the second).

So that's the big picture. But what about the day to day? Well, **the key is not to just go through problem after problem**, hoping that with each question you have "under your belt" your score will creep up a point increment. You have to be aware of your thinking process, especially when it leads to mistakes. For instance, don't just take a practice test and figure out which ones you missed. Actually, try to think back to the moment you were in the question, when you made that final choice not to choose, say (A), the answer, but (C). Understand what makes (A) correct and (C), your original answer incorrect. By thinking back to that moment when you selected the wrong answer, you'll be better able to avoid mistakes in the future.

You'll also want to make sure to have a **good balance between reading up on how to approach the questions and actually doing the questions.** Some students will read an entire book's worth of strategy before even doing a single question. Conversely, others will just dive into the questions without reading up on test prep techniques. At least when you are starting off, spend about 30 minutes reading strategy, then actually go apply that knowledge on relevant question types. Of course always reread the strategy to make sure you got it right in the first place.

Finally, **be consistent.** Don't just study once a week, thinking that you're going to see any noticeable improvements. You'll want to study at least 3 times a week in the beginning, and leading up to the test, almost every day. Don't worry, even 30 minutes a day will go very far.

The key is the consistency in studying and the consistency of how you study. If you scores aren't improving over the course of a month, revisit your approach and see if there is anyway you should tweak it. Remember, a lack of a score increase is not because of you; it is because of your approach. If you simply have to memorize more words to ace the Critical Reading section, then hit the books. Whatever your goal may be, it is within reach.

Vocabulary

How Difficult is SAT Vocabulary, Really?

If you haven't taken any practice SATs or done much in the way of prep, you might not realize what, exactly, you're getting into. SAT vocab is totally nuts. There will be words on the test that you've *never* seen or heard. I mean it.

Oh, you read a lot? And you think you have a great vocabulary? Me too. But here's the thing: there's still a word or two on most SATs that I don't know. And it's not just me! That's true of every other SAT teacher I know, too. There's something wrong with that, right?

Just to be clear about what we're talking about, take a look at a few of the toughest SAT words that I've taken from actual SATs. I don't think SAT vocab repeats often enough that you'll necessarily see any of these on the version of the test you take, but you might. Or you might see some other crazy word, like "impute". Or "diaphanous". And you'll most likely see some of these frequently tested SAT words too.

English is a really, really big language

It's not all that easy to measure how large languages are. Truth be told, it's totally impossible, because languages aren't clearly defined things. (Where does English begin and end? Scottish sounds like a whole other language to *me*.) That means that testing vocabulary is a daunting task. The SAT makers have to decide which words are fair game, and which are too rare, too old, or too localized to test. Is the word "contrariwise" too outdated to include? How do we decide?

The SAT focuses on academic words

For the most part, SAT vocabulary is academic vocabulary. To get a sense of what that means, try to imagine how a caricature of a Harvard professor might speak. I'm talking about the kind of guy who wears a sweater vest. For a complete picture, give him a hint of a British accent. If you didn't put your napkin in your lap, he'd think you *indecorous*.

So as big as English is, the test makers have something to focus on. But here's the problem—"academic" words are sometimes really, *really* rare words.

Most SAT vocab is reasonable

I don't want to make it sound like the SAT has insane expectations; there are just a handful of words on each test that are as difficult as the ones I mentioned. And even if you don't know those words, if you've got a sturdy enough foundation of word-roots, prefixes, and suffixes, you can usually do pretty well. It certainly helps to have a bit of strategy in your tool belt, too.

Learning SAT Vocabulary

I know – it's probably the number one thing you dread about having to study for the SAT. Some even take the easy way out by never even learning a word. After all there are only 19 Sentence Completions on the entire test (the Sentence Completions are those pesky fill-in-the-blank questions).

But if you think the vocabulary will stop as soon as you move on to the Reading Comprehension section, you are woefully mistaken. Many reading passages are filled with SAT-level words. And guess who's writing the answer choices? Yep, so you can bet that many answer choices require that you know SAT words.

In the end, ignoring vocabulary you may be limiting yourself by as many as 200 points on the verbal section. And the difference between a 400 and a 600 could be the difference between a great college and a not-so-great college.

Okay, if you are with me so far and didn't stop reading somewhere in the middle of the last paragraph, then I don't need to continue emphasizing the importance of vocabulary. Indeed you may very well be wondering how you can improve your vocabulary. You've probably heard that flashcards are helpful, but you may wonder which SAT flashcards are the best. You may even think that flashcards are unnecessary. After all, can't you just study from a list of words? In future posts, I'll give you some do's and don'ts for how to master SAT vocabulary. Stay tuned!

How to Use SAT Flashcards

What's the best way to use flashcards for the SAT? Well the truly the best way is with our free SAT vocabulary flashcards. They'll come at you in a spaced repetition format and will keep you on your toes the whole time.

Randomization. It's a big word, but don't worry – it probably won't show up on the SAT. The essence of randomization is that things are unpredictable or random (hence 'random'ization). And when you are learning vocabulary you want the process to be random. If you learn from a list you know exactly where each word is and you begin to memorize the placement of the word as well as the words around it. This predictability shuts down your brain (more on zombies later) and that never helps with learning.

But not so with the Magoosh flashcards. Words are never in the same order, so you aren't quite sure which word you'll see. This keeps the brain on its toes, so to speak.

And truly making words stick is the ultimate goal of learning SAT vocabulary (remember this isn't your English class's weekly vocab quiz).

Okay, so maybe I've somewhat sold you on flashcards. Now what? Get started with Magoosh flashcards. That's what!

How to Remember SAT Vocabulary

Look it up

Whenever you encounter a new word, look it up. I know – you're probably thinking that you can usually guess the meaning of a word based on context. But if you never look up words you can never really confirm how accurate your guesses are. And the more you know and the less you guess, the higher your SAT score.

Of course, looking up a SAT word without ever remembering it (whether by turning it into a flashcard or writing it down) doesn't help. In addition to writing a word down you will also want to see how it is used in context. A few great resources for seeing how sentences are used include Princeton Review's Word Smart, and for those on-line, wordnik.com, dictionary.com, and Merriam-webster.com.

The importance of understanding how words work in a sentence will help you have a deeper sense of the word, and will make the memory of that word stronger.

Everyday use

The more you use these words the better. Often I've had students in class use SAT words to describe something in class. "I'm feeling phlegmatic." While this is by no means the most eloquent sentence, the fact that a student is using the word correctly means that they have a strong grasp of a word. If you just learn hundreds of words without ever using them, they will eventually evaporate. The key to doing well on the SAT is to make sure vocabulary words stick in your head.

Another great way is to describe people you know, celebrities, or even random people using SAT vocabulary. We all know a friend who is garrulous (talkative), a celebrity who is, and a random person walking by as saturnine (sand and morose).

A creative way to remember SAT vocabulary: storytelling

Storytelling is a special form of application. It's not for everyone, but if you journal, blog, or just like random stories, then telling stories using SAT words will be a great way for the words to stick in your head. The stories don't have to be Pulitzer Prize worthy but as long as you are having fun that's the important part.

Also don't simply look up words and write a nonsensical sentence with 10 vocab words. You should be using the words that are already inside your head (which means that you already have to be studying vocab).

The best way to remember SAT vocabulary: practice!

This one is obvious, but don't forget to do SAT practice questions. Learning the definition of a word and using it in a poem about your imaginary friend is one thing. But actually tackling a word you've just learnt in the context of a reading comp or Sentence Completion question will directly sharpen your SAT skills.

Make SAT Vocab Fun

Mnemonics

The word “lambaste” means to criticize someone harshly. By the time you finish this sentence you’ll probably have forgotten that. Now, what if I tell you to imagine somebody who always criticizes you (I can already picture my high school P.E. teacher). I want you to imagine that that person’s head has been replaced with the head of a giant lamb. Now it is this lamb ‘lamb’asting you.

Sounds totally twisted, right? Well, that’s the point. Now you are far less likely to forget the word.

These random, wacky connections are called mnemonics. And the best mnemonics are the ones that you come up with. They don’t have to make sense to anyone but you. In fact, maybe the lambaste example didn’t work for you. In that case come up with your own. And remember – the weirder, the better.

Vocab games

How many words SAT words can you think of that start with the letter ‘p’?

Which SAT words mean to criticize or scold? (Here you may want to think of lambaste).

Think of an SAT word and define it. Then think of another SAT word that begins with the same letter that the first SAT word ended in. See if you can repeat 10 times. (This game also works great with more than one person!).

Okay, this is kind of geeky, but it can turn you into a vocabulary machine. I would speak in the hypothetical and say, ‘if you have friends taking the SAT…’ but with the vast majority of high school students taking the SAT, if you have a friend that person is probably taking the SAT. So challenge him or her and see if you can stump them with a word. If they are the competitive type then they will probably try to stump you back. And don’t worry, if you think spouting random SAT words is going to make you look uncool, remember you can always wait till after school.

SAT Vocabulary Don'ts: Strategies to Avoid

The zombie

You may have seen them in the movies and on T.V. but zombies could actually be a lot closer than your think….

If you've ever crammed for a vocabulary quiz (which is probably like 99% of you), you probably recall looking at a list of 15 or 20 words, covering the definition with your right hand, looking at the word and then trying to define it. You may have well skipped the whole hand covering bit and simply looked at a word, read the definition, and thought to yourself, 'yeah garrulous means talkative, Okay that's easy.' A few seconds later, after you've covered, in an identical fashion, a couple of more words, you've totally forgotten the word.

What's happening to your brain? It's shutting off. You are not challenging it – you are just reading from a list, your eyes glazing over. You are essentially becoming…. a zombie.

So ditch studying directly from a list. It may help for the short-term (and I stress the word 'may'), but zombies are not known for their long-term memory.

The juggernaut

So you've gotten really excited about words, and you plow through vocab non-stop, a stack of SAT flashcards twice as high as the SAT College Board laid on its side. You may even trumpet your success to your friends, "Hey, dude. I studied like 2,000 SAT words. I'm totally going to rock the verbal section." But if you only have a tenuous grasp of a word, studying a hundred more words is only going to make the memory of that word even shakier.

So instead of plowing through word lists the way that the X-men character Juggernaut plows through walls (juggernaut is an SAT word that means an indestructible force) make sure you have strong sense of a word before moving on to new words.

The parrot

Dictionaries often define words in such way as you really aren't sure what the word means. In this case, if you simply memorize the dictionary definition word-for-word you haven't done yourself any favors. Do your best to simplify definitions in your own words.

Let's say the word is disingenuous. The dictionary says, "giving a false appearance of simple frankness."

The parrot would smugly caw the definition, blithely unaware that he or she really doesn't understand how this word functions in a sentence. You want to be a vocab detective by looking up the word in multiple sources and, better yet, looking at example sentences.

Once you've done the above with the word disingenuous, your definition can be "pretending to be all innocent." Now you get it and can probably apply the word (remember: use it or lose it) to describe

The hermit

Don't hide your SAT knowledge from friends and family. Enlist a little brother or sister to quiz you on flashcards. Outsmart the older sibling back from college for a week with words like pusillanimous and infinitesimal. Parents can sometimes be a great resource. Often they will surprise you with the number of SAT words they know.

But don't be a hermit and hunker down with a deck of flashcards and a dog-eared copy of the College Board SAT book. Get other people involved in your vocab-learning endeavor.

Top 25 SAT Vocabulary Words

How many of these SAT words do you know? This is a good list to really gauge how much you know. For those looking to score above 600, make sure to know all these words. Also, make sure that you understand *how* SAT Vocab is tested.

- Esoteric – known only to a select group
- Ephemeral – short-lived
- Ambivalent – having mixed feelings
- Verbose – using too many words
- Indifferent – expressing no opinions on a matter
- Empathetic – feeling sympathy because
- Gregarious – flocking, sociable
- Revere – respect deeply
- Exonerate – free from blame
- Urbane – refined, of the city
- Enigmatic – mysterious
- Fastidious – nit-picky, fussing over details
- Tenacious – not giving in easily
- Garrulous – talkative
- Reticent – not saying much
- Magnanimous – kind-hearted, likely to forgive
- Belligerent – war-like, inclined to fight
- Soporific – causing sleep
- Arcane –difficult to understand
- Equivocal – vague
- Curtail – cut short
- Ebullient – highly enthusiastic
- Preclude – to prevent from happening
- Ambiguous – open to more than one interpretation; unclear
- Indigenous – native to a certain area

Think you got what it takes?

Below is a Sentence Completion that tests your knowledge of the words below. The answer is at the bottom of the page, so be sure to cover it up before trying your hand at the question!

> *One moment he prattled on _____ seemingly unaware that those around him were irked, the next he became ____ and barely said a word.*

A. gregariously . . unambiguous
B. indifferently . . belligerent
C. reverentially . . magnanimous
D. empathetically . . tenacious
E. garrulously . . reticent

Answer: (E)

Knowing these words is a vital SAT Critical Reading tip that you should follow and will certainly save you from taking big risks by guessing on SAT questions because you don't know the definitions of words.

Top 10 Sets of Confusing SAT Words

With thousands of words to memorize, the SAT often leads to students to jumble up words in their heads. It's hard to separate the most common SAT words from the no-shows on test day. And it's hardly their faults—the English language is consists of many words that either look and/or sound very similar. See if you know the difference between the words below.

1. Loathe vs. Loath

The first word is the most common one, as in: I loathe you—you ate all my yummy chocolates. An easy way to remember that loathe means 'to hate intensely' is to look at the last four letters: lo'athe'. If you unscramble 'athe' you get hate.

I wish I had a fun nifty mnemonic for loath, but alas I don't. To be loath is to be reluctant.

> *He was loath to study for the SAT, but realized his future was at stake.*

2. Indigent vs. Indigenous

The first word is an adjective that means 'very poor'. It can also work as a noun:

> *The indigents down by the railroad tracks slept in soggy cardboard boxes.*

The second word means 'native to a certain area'.

> *Despite what many believe, the kiwi is not a fruit indigenous to New Zealand but was originally grown in China.*

3. Discrete vs. Discreet

To be discreet simply means 'not to draw attention to something'. This word is more commonly used than discrete.

> *The student discreetly raised her hand and asked softly whether she could leave to use the restroom.*

Discrete means 'broken into distinct groups'. For the word 'discrete', I do have a nifty mnemonic: notice the 't' in discrete. It breaks up the two 'e's. Now the two 'e's are discrete (they are split by the 't').

4. Extant vs. Extinct

The first word means ‘still existing’. The second means ‘no longer in existence’.

> *Many of Shakespeare’s original manuscripts are extant — the same cannot be said of Euripides’ works.*

5. Deter vs. Defer

The first word means ‘to prevent something from happening, usually by threat’. The second can mean ‘to submit to another person’s judgment or authority’. It can also mean ‘to put aside for later’.

> *The word ‘defer’ has many different definitions but don’t let that deter you from learning it.*

6. Indignant vs. Indignity

Déjà vu? Nope, these two words are actually different from *indigent* and *indigenous* (found above). Yep, more confusable ‘indig-’ words, but don’t become indignant — or angry — about it. Simply memorize them. Oh, and indignity means treatment that takes away your dignity.

> *After he’d lost all his money on the stock market, Ted no longer went to basketball games, because he did not want to suffer the indignity of sitting in the worst seats in the house.*

7. Vindicate vs. Vindictive

Out for revenge, and going to get it no matter what? Well, you are vindictive. If you simply want to clear your name from false charges, then you want to vindicate yourself.

> *An assumed murderer who has claimed is innocence all these years and who is finally found to be innocent based on DNA evidence? He’s vindicated. An actual murder who wanted revenge? He’s vindictive.*

8. Unconscious vs. Unconscionable

Unconscionable does not mean to black out after being hit over the head (that would be 'unconscious'). Unconscionable means totally unreasonable. It is usually used to describe an action, and carries a negative connotation.

> *That he would steal from the very firm that had paid him such a generous salary was unconscionable.*

9. Fastidious vs. Facetious

To be fastidious is to be nitpicky — everything has to be in order or you are going to say something.

> *Perhaps, you find your English teacher fastidious because he or she is always finding grammatical errors.*

To be facetious just means you are always cracking jokes, and don't really want to be taken seriously.

> *If I tell you that you are a grammar Nazi because you corrected one little grammar error on my essay, I'm probably being facetious (or just, like, really sensitive).*

10. Demure vs. Demur

If you are shy and modest, you are demure. For whatever reason, this word applies only to women. Calling a guy demure may have unintended implications. Indeed, this guy may very well demur, or object to you calling him a word that is usually reserved for the fairer sex. Interestingly, demur is a verb and in noun form it becomes demurral, which is basically an objection.

Hopefully the tricks I used in these words also show how to remember SAT vocabulary in a way that's better than just remembering or scrolling through SAT vocabulary flashcards.

Critical Reading

Sentence Completion Basics

If you've spent much time preparing for your SAT, you've probably already come across this strategy, because it's both one of the simplest and one of the best out there. It's in every SAT prep book I know of (including the College Board's official offering, which is relatively light on strategy), the major prep classes recommend it, and there's a small chunk of test-savvy students who do it without having to be told. But, unfortunately, it doesn't come naturally for everybody, so let's make sure you're clued in.

So what's the tip? *When working on Sentence Completions in SAT Reading, you should always keep from looking at the answer choices until you have your own word in mind.*

That can be a little hard to do, especially if you're feeling jumpy on the day of your test. It takes a little bit of conditioning and willpower to stop your eyes from roaming all over the page.

Protecting yourself from wrong answer choices

If you see your possible answers before you read the sentence that you're going to complete, you're going to get attached to a wrong answer at some point. This is especially true in the higher difficulty questions, which might easily have some words that you've never seen before … unless you've been awesome about building your SAT vocabulary. Any words you do know will be really tempting to hold on to, even if they're wrong. They'll put their hooks into you if you're not careful. Definitely make sure you know the most common SAT words.

So instead of leaving yourself open to wrong answers, you have to build up a little bit of armor — that is, the word or words *you* choose to fill in the blanks.

Anticipating the answer can save you time

Besides guarding you against wrong answers, guessing what the word is before seeing answer choices can make the process go much faster. If your guess is pretty good, there's a good chance you'll see a very close synonym — or your word itself — in the answer choices. Anticipating the answer isn't just armor, in this case. It goes further, and carves out a path for you to follow, so you don't have to battle through those wrong answers at all. Just keep in mind that guessing on the SAT is a delicate balance. Speaking of which …

Try guessing

Take a look at this example, and see if you can armor yourself against wrong answers.

> *Early models of the car were so _____ that they left little space for additional features to be incorporated into the design.*

And you know what? Forget the answer choices. Because you *shouldn't even be looking at them yet*—not until you've made a solid guess.

So what goes in the blank?

Tip: come up with your own word

I'd say about 99% of students who are seeing a Sentence Completion for the first time use the following strategy: read the sentence, and then plug-in each word to see which one sounds the best.

Let's try using that approach with the following:

> *Gerald was prone to bouts of _____ and would oftentimes sit hours at a time, looking glumly out of his bedroom window.*
>
> A. inertia
> B. hostility
> C. melancholy
> D. recalcitrance
> E. nostalgia

Many students would plug in inertia and think, *hey, that sounds pretty good.* Others would pick hostility, imagining Gerald looking out of the window with a really mean look on his face.

But the SAT Sentence Completion is no game of mad-libs, which requires you simply to insert the correct part of speech. Only one word fits the blank, and that word is not random. Nor can it effectively be found by plugging-in words to see which one sounds best.

Instead, and here is the big tip #1: *Look for the keyword(s).* That's right, the keyword is the word or words in the sentence that will unlock the blank.

Let's revisit Gerald, who is probably still sitting by the window. What we are looking for is not the fact that he is sitting by the window or even that he is sitting (you could, after all, be sitting in many different ways).

The word we want is describing Gerald as he sits by the window. That word is 'glum.' Glum means sad. Therefore, the word in the blank has to mean 'sad.'

Only (C) melancholy, which means sad, fits in the blank.

Though it may be tempting, do not pick (A) just because inertia suggests lack of movement. Again, we need to find a keyword in the definition and then find out which of the answer choices is most similar to that keyword.

Takeaway

Whatever you do, do not plug-in answers to see how they sound. Always look for the keyword in the sentence. Only it will unlock the answer.

Sentence Completion Dual-Blanks

How to answer dual-blank Sentence Completions

Although many students _____ that they're more difficult, two-blank sentence completions on the SAT are in fact _____ than their one-blank counterparts.

A. trust . . less weighty
B. deny . . simpler
C. suppose . . more complex
D. assume . . less problematic
E. contend . . hastier

The example above has a message, clearly. If you're not sure what it is now (i.e. you can't get to the answer), you'll know by the time you finish reading this section. But even if you do know, keep reading — the strategy I'm about to explain will save you time on the day of your SAT.

Find the easier blank first

You should always guess what word (or words) might go in a blank before you look at your answer choices. If you have to cover the answers with your hand, so be it — that's a good strategy for staying focused, anyway.

But which blank should you guess first? Or should you make a guess for both of them at the same time?

Most of the time, one of the blanks will be pretty clearly defined by the sentence it's in (or it will be contrasted with another word), so your first goal is to find which blank is more obvious. Then, guess that one first.

In our example, the second blank is more clearly defined, since it should probably contrast with "more difficult" (thanks to the word "although"). What's the opposite of "more difficult," then? We'll guess "easier."

Eliminate answers based on one blank

Without even bothering with the other blank, let's cross off some answer choices based on our guess for the second blank. (A) seems pretty strange — we can probably cross it off — but it has the right positive connotation. Keep it if you want, for now. (B) definitely fits our prediction, as does (D). On the other hand, (C) is the opposite of what we want, and (E) looks totally irrelevant.

So we're left with (B) or (D), and possibly (A).

Plug in the other blank

If we plug in (B), then we end up with a problem. If students deny the questions' difficulty, and the reality is opposite of what the students think, then the second blank would have to be something like "more difficult." So that's a no-go.

Meanwhile, (D) gives a more logical relationship. Students assume the problems are difficult, but in reality they are less problematic. Answer (A) isn't nearly so neat.

And we're done.

How are two-blank Sentence Completions simpler than one-blank questions?

You have twice as many opportunities to eliminate answers. So if you know just one of the two words given in each answer choice, you still might be able to get to the correct answer by elimination.

In contrast, if you don't know a few of the words in the answer choices of a one-blank sentence, it's a lot harder to decide what to cross off.

How two-blank sentences can be difficult

There's a catch. In the example above, we could've easily made a mistake. As it is, we used positive words for both blanks (assume = believe is true; less problematic = easier to do), but the answer could have been two negatives, and it still would have had the right relationship.

That is, if answer choices (B) and (D) looked like this:

(B) deny . . trickier

…

(D) assume . . more problematic

Our original prediction would have been wrong, and (B) would have been the answer. That doesn't mean our prediction was bad, though. Always guess what you'll see! Instead, it means we have to look at the question one more time. Can we fit in a word with the opposite meaning of our original guess? If we can, then try it and just repeat the process.

That doesn't happen very often, though; in most Sentence Completions on the SAT, one of the blanks will be clearly defined by the sentence. So find that definition and use it!

Practice

Now let's try an actual two-blank SAT question so you can apply some of tricks above.

> *The mayor's self-serving excuses proved to have a(n) _____ effect on her career — she even _____ some of her staunchest advocates*
>
> A. restorative . . heartened
> B. negative . . misaligned
> C. palliative . . sidelined
> D. deleterious . . alienated
> E. far-reaching . . silenced

As you can see we have two-blanks that, on the surface, seem like they could either be positive or negative — but not a mixture of both. Notice that there are no words that "pivot" the sentence so that the one part is the opposite of the other (these familiar words include despite, although, however, even (though), nonetheless, etc.)

One method of going about solving this one is to eliminate those answer choices in which the words are not both positive or both negative. Starting with (A), you can probably infer that both words are positive (you don't have to know the exact definition of heartened, just that it is positive). (B) also has words that are the same (in this case they are both negative). (C), however, has a positive word (palliate) and a negative word (sidelined), so we can get rid of it.

(D) has a tough SAT word (deleterious) and a not so tough word (alienated). Based on the way it looks, and sounds, deleterious comes across as a pretty negative word (notice "delete"). So keep (D).

Finally, (E) has a positive word ("far-reaching") and a negative word ("silenced"), so it doesn't work.

That leaves us with (A), (B), and (D). Notice, that (A) has two positive words and (B) and (D) each have two negative words. If we look at the sentence a little more closely, we see the word "self-serving", which is a negative word, meaning that both blanks are actually negative. If you caught on to "self serving" at the very beginning, good for you, because it is a very subtle clue. So let's eliminate (A).

That leaves us with (B) and (D). This is a pretty tough question (probably a level 4 on the SAT scale). So even if you can't get the question from here, don't worry. What's important is that you can reason/strategize your way to making a tough dual-blank Sentence Completion a 50-50 proposition. Not bad odds.

But let's take this one to completion: negative is a pretty easy word, one that baits you into choosing (B). Almost always, an easy word that nicely fits the first blank is a trap, as I'll talk about in advanced strategies. What makes (B) wrong, however, is the second word. What does it mean to misalign? It means to set up or put in the wrong position. That is an odd word to use on people who no longer like you and have distanced themselves from you. A much better word is alienated. And, there we have it: the answer is (D).

Advanced Sentence Completion Strategies

For the last two Sentence Completions of each Critical Reading section, one of them is almost definitely bound to be a two-blank Sentence Completion (and sometimes both are). While the general strategy for approaching these tough dual-blanks is similar to what you'd use dealing with easy and medium two-blank Sentence Completions, there is some more strategy involved with a difficult two-blank Sentence Completion.

Strategy

First, let's quickly review strategies for the two-blanks:

- Always deal with the easier blank first
- Come up your own word
- Eliminate wrong answers

Plug in final answer choices for the final blank (usually two or three are left standing).

For advanced Sentence Completions there is something else we want to pay attention to: the difficult of the words. Take a look at the following question:

> *Max was so _____ that he never could be caught in an outright lie; his _____ worked its seductive spell through a calculated mix of half-truths and disingenuousness.*
>
> A. prodigious . . charisma
> B. clever . . demeanor
> C. devious . . duplicity
> D. tactical . . munificence
> E. forthright . . chicanery

Our first instinct is to go for "clever" – after all, Max could never be caught in a lie. As soon as we latch on to this answer choice, we move on to the second word, and even if that second word doesn't quite work, we've become so committed to the answer choice that we make that second word work. (B) demeanor is one's facial expression. And it seems sensible that is his facial expression would trick people. So just like that we pick (B).

(B), however, is not the best answer. See, how does a facial expression tell half-truths. You could argue that the facial expression wasn't quite truthful, but that is a stretch. But this way of thinking is exactly how the SAT engineers many of these tougher dual-blanks: they bait you in with the perfect (but easy) word for the first blank and then give you something that is almost-but-not-quite right for the second blank.

Typically, the actual answer contains a difficult word for the first blank. In this case, the word devious. Even if you happen to know the word devious, remember that it is a much more difficult word than clever (a 4th grader would know the meaning of clever but would have to be very smart indeed to know the definition of devious). Devious, by the way, means crafty and underhanded.

For the second blank, we have the word duplicity, which means deceitfulness. Max was duplicitous in that he was always lying but in such a way that was not obvious. Unlike, (B) demeanor, (C) duplicity matches up better with the overall sense of deception that pervades the sentence. Disingenuousness, which pops up at the end the sentence, describes that quality of pretending you don't know what is going on, when you very well do.

The Takeaway

The takeaway from all of this is to be on guard if you see a relatively easy word that works perfectly for the first blank of a two-blank Sentence Completion. On difficult questions, this setup is usually a trap; the correct answer will have a more difficult word for the first blank.

And the word for the second blank may be either a relatively straightforward word or a difficult word. The test writers know that you are far less likely to be baited in by easy words that apply to the second blank.

General Reading Comprehension Strategies

The Reading Comprehension Section of the SAT requires intense focus. You'll be facing long and short reading passages, and will even have to compare two long passages on similar topics. Read on to learn the best SAT Reading Comprehension tips and tricks!

1. Read the entire Reading Comprehension passage

There is this urban myth that you can ace the Critical Reading passages by reading the questions first and then going back to the parts of the passage the questions tells you to - without ever reading the passage all the way through.

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

So let me say it loud and clear: Always read the entire passage first.

2. Get the big picture

Doing well on the SAT reading passages comes down to understanding what the passage is about in general. If you find yourself stringing words together, hoping just to reach the end of a passage that is nothing less than torture, you are actually hurting yourself. It is not about getting to the end of the passage; it is about understanding the passage.

3. Watch out for the swamp

Some people take the idea of trying to understand the passage to the other extreme. 'I have to understand every detail', they tell themselves. Many of these passages are constructed in such a way that there is a lot of dense, nasty material buried in the passages. Students oftentimes 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 deal with easier parts of the passage — or at least not exclusively on understanding two back-to-back difficult sentences. The key is understanding the topic sentences of the paragraphs, and feeling comfortable about glossing over the tough stuff — instead of getting stuck in a swamp of words.

4. Take snapshots

No, I'm not talking about taking pictures from your iPhone. "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 make a quick summary of while you reading. For instance, when you are done with the first paragraph, you should say something to extent of, "Ok, 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 you long — only a about five seconds or so. For those who aren't fast readers or used to summarizing stuff in their heads, you can also write mini-paragraph summaries in the margins (though I recommend building up to where you are comfortable making mental snapshots of each paragraph).

And remember: You are just going for the big ideas. Don't get buried in the "swamp", because it will disrupt your ability to understand the main ideas of the passage.

5. Get really excited

I know this sounds weird. After all, you are dealing with 800-word passages. What the %$@ is there to get excited about? But that's the point: our natural tendency upon starting a reading passage is to fall asleep — or at least get bored. By convincing yourself that what you are about to read is so fun and entertaining — and thus boosting that pulse ever so slightly — you'll be far more alert as you read.

By combining all the elements above, you are going to be far more prepared for those sneaky questions, and all those carefully placed traps in the answer choices. The key when applying these techniques is patient practice. You are not going to automatically start taking real clean "snapshots" as you excitedly make your way through a passage about the dispute regarding Linnaeus's taxonomic contribution to natural science.

A Note on SAT Reading Comprehension Passages

SAT reading passages aren't written specifically for the test. Instead, they're taken from college-level reading sources and adapted to make them fit easily into the 700 words or so (for a long passage) that the SAT likes. Of course, that means they have to make some pretty significant changes to the text — giving it a clear introduction and conclusion, especially — because these books that they're from aren't written with the test in mind.

Unless you're a really voracious reader, there's not much chance that you're going to see a passage that you recognize. It's possible, but there's no way to know ahead of time, and no matter how much you read between now and the day of your SAT, you're not going to better your odds.

SAT reading passages are academic

Generally, SAT readings come from books that you might read in college, and that makes sense. Of course, there are all sorts of different things you might study in college. So it's about as likely that you'll get a history of Kabuki theater as it is that you'll get a theory about the purpose of a narwhal's horn.

Officially, the passages come from social sciences, natural sciences, humanities, or literature.

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.

SAT readings aren't super dense, old, or full of jargon

Even if they're academic, SAT reading passages are supposed to be readable for people who aren't actually in the field of study that they're from.

So you won't get any Shakespeare, or anything by Kant. Nor will you get any 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.

Fiction on the SAT

There's always a fiction passage on the SAT, but it's not usually the kind of thing most people have read for fun — sorry, 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, it's the right type of book.

In comparison with the other types of passages, the fiction is more likely to be old. You may get something by Dickens, for example.

How to read SAT passages

Remember not to get too bogged down. Get a good idea of the overall picture while you read — understanding how it all ties together is crucial — and remember to take notes to stay focused!

Reading Comprehension Question Types

1. Vocabulary in Context Questions

A very common question on the reading passages is the vocabulary-in-context question. Students also tend to make a very common error on these question types: matching up the answer choice with the words in quotation marks.

Let me show you how this works.

> *As it appears in the passage, the word "heralded" most nearly means*
>
> A. believable
> B. indistinguishable
> C. celebrated
> D. permissible
> E. announced

This is our standard vocabulary-in-context question. Notice that a word is in quotation marks. Notice, as well, the words "as it appears in the passage". This is key because we MUST look at how the word is used in the passage in order to get this question right.

Yet — and here is the big kicker — students continue to go to the last place they should when looking for the answer: the answer choices. See, the SAT has arranged the answer choices very nicely so that a word you associate with the word in quotations marks is waiting for you. *Waiting to trap you, that is.*

For instance, in the question above when you think of heralded, you probably think of herald, a person who announces something. So like that you go to (E). Even if you still go to the passage, you mind has already been influenced by (E). The logic is that once you've made a choice — even if it is the wrong one — it is very difficult to change your answer.

So the first place you should go is the passage. Next, you should go the line where the word in quotes appears, and you should read the sentence as though it were a Sentence Completion question, pretending that the word in quotes has suddenly disappeared and been replaced by _____ (a blank). Now, just as you would with Sentence Completions, come up with your own word. Then, match your word with the words in the answer choices. Let's try it.

Practice Passage

Today, the number of authors churning out novels is perhaps greater than at any time in history. That's not so much because talent has flourished as there are simply more books being published today. Of course with so many recent novels claiming literary prizes, one would be inclined to believe that many works published today are instant classics. I'm not sure if this is the case — or indeed if anyone today is in the position to claim any recent book as worthy of the exalted tag: "Classic." Part of the definition of a classic, after all, is that the work is still ***heralded*** *decades after it was published. That the generation a few decades hence will perceive our present time as a golden age of literature is possible—though it may be too busy bestowing prizes on its own novelists.*

If I replace the word "heralded", I come up with the word "praised" or "liked". These words don't have to be fancy SAT words — in fact they shouldn't be. Just come up with a simple word and match that with one of the answers. In this case, which one of these answers works best?

A. believable
B. indistinguishable
C. celebrated
D. permissible
E. announced

Scroll to the next page to check your answer and read the explanation.

Answer/Explanation:

Only (C) is even close. If a book is praised or liked, then it is celebrated. (E) doesn't make any sense at all. (What does it mean to announce a book decades later?) At this point, you may want to put the word you've chosen into the text to see how it sounds.

*Part of the definition of a classic, after all, is that the work is still **celebrated** decades after it was published.*

One final note: 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 vs. 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.

2. Primary Purpose Questions

Your SAT reading comp sections will include a few questions that look something like this:

> *The primary purpose of this passage is to …*

Or this:

> *The authors overall tone could best be described as …*

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

It's pretty easy to get tricked by answer choices like that unless you have a method.

Sketching the big picture

If you take one thing away from this post, it should be this: take notes about the big picture while you read.

Besides keeping you focused, notes also help by giving you a zoomed out picture. You're only going to put the most important details and how they relate to each other in your notes — thinking about their function in the overall passage — so when you look at those, later, you're not going to get distracted by the little details.

Why zooming out is important

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 its overall shape. Any one little section of an SAT reading passage is like that. Even if I gave you a whole bunch of pictures, it'd be pretty hard to decide, just like using the whole text without notes would be.

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 what the question was asking for.

Making sure you're ready 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 those questions for staying 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.

3. 'Line Number' Vocabulary Words Questions

For the next two questions from the following SAT reading passage, we have a question type called Vocabulary in Context. This question type is one of the easiest to improve on, mainly because many students approach this question incorrectly.

What happened in between those two photographs is that I experienced, and then overcame, what the poet Meena Alexander has called "the shock of arrival." When I was deposited at the wrought-iron gates of my residential college as a freshman, I felt more like an outsider than I'd thought possible. It wasn't just that I was a small Chinese boy standing at a grand WASP temple; nor simply that I was a hayseed neophyte puzzled by the refinements of college style. It was both: color and class were all twisted together in a double helix of felt inadequacy.

Let's try this first question below:

> *As used in line xx, "deposited" most nearly means*
>
> A. placed into
> B. dropped off
> C. disengaged
> D. entrusted
> E. invested

Many look at the word "deposited" and then look straight at the answer choices. *DO NOT DO THIS.* The question is all about context, which means the words around the word in question. So you must go back to the passage and find the word. Here I've excerpted the relevant part of the passage:

When I was deposited at the wrought-iron gates of my residential college as a freshman, I felt more like an outsider than I'd thought possible

Next, put your own word in place of the word in quotation marks. That's right – ignore "deposited" and come up with your own word. Then, match that word with the answer choices.

Here we can come up with dropped off – that is, his parents dropped him off in front of the school.

Now let's take a look at another vocabulary-in-context. Let me also point out that typically you will not get more than one vocabulary-in-context question per medium-length passage. This question is also a little harder – give it a shot!

Here is the relevant part of the passage:

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.

As used in line xx, "affected" most nearly means

A. reacted
B. had an effect on
C. give forth the impression of
D. approached cautiously
E. appropriated

Here the author looks preppy in a second-hand way. He is trying to give forth the impression that he is preppy (in a cheesy way). Therefore the answer is (C).

Do not be drawn to the answer choice because it reminds you of the most common form of the word. In this case, you may think "affected" matches up with (B). If you look at the context – and place (B) where you see "affected", the sentence will not make sense.

Again, always make sure to go back to the relevant part of the passage when you are doing a vocabulary-in-context question. This is one of those situations where SAT vocabulary flashcards will only help so much and if you spend all your time focusing on simply how to remember SAT vocabulary, you'll be inclined to jump to all the wrong conclusions.

4. Direct Reference Questions

Typically, medium-length CR passages have no more than six questions. As this is a tutorial of sorts, I've decided to milk the passage for ten questions. My aim is to go through a variety of different question types, so I will need to go over the usual limit of six.

Direct Reference
This question type will direct you to a specific part of the passage. In this case, the first paragraph. A direct reference should not be confused with a line reference question, which gives you the specific lines. The method for both questions, however, is similar. With the question below, we want to read the first paragraph, keeping in mind the question.

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, match with answer choice. Good luck!

Note:

The following passage was excerpted from an essay called "Notes of a Native Speaker" by Eric Lui, a former speechwriter for Bill Clinton. This passage is typical of what you'll encounter on the SAT: it was written by a minority (there's usually one such passage on the SAT), it's articulate (notice all those big SAT words), and it's vaguely argumentative while exploring deeper themes (this guy was clearly going through an identify crisis).

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, and more than a bit contrived.

What happened in between those two photographs is that I experienced, then overcame, what the poet Meena Alexander has called "the shock of arrival." When I was deposited at the wrought-iron gates of my residential college as a freshman, I felt more like an outsider than I'd thought possible. It wasn't just that I was a small Chinese boy standing at a grand WASP temple; nor simply that I was a hayseed neophyte puzzled by the refinements of college style. It was both: color and class were all twisted together in a double helix of felt inadequacy.

For a while I coped with the shock by retreating to a group of my own kind—not follow Asians, but fellow marginal public school grads who resented the rah-rah Yalies to whom everything came effortlessly. Aligning myself this way was bearable—I was hiding, but at least I could place myself in a long tradition of underdog exiles at Yale. Aligning myself by race, on the other hand, would have seemed too inhibiting.

I know this doesn't make much sense. I know also that college, in the multicultural era, is supposed to be where the deracinated minority youth discovers the "person of color" inside. To a point, I did. I studied Chinese, took an Asian American history course, a seminar on race politics. But ultimately, college was where the unconscious habits of my adolescent assimilation hardened into self-conscious strategy.

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. insipidity to mediocrity
D. awkwardness to poise
E. immaturity to jadedness

Find the explanation on the next page.

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. (E) is in wrong because the jadedness is too extreme. To be jaded is to be bored from something that you've had too much of. (C) mediocre doesn't work either, because he is focused on his dress, and how his dress shows that he has gone from this awkward, out-of-place freshman, to one who fits in to the Yale mold by wearing the "right" clothes.

5. 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 trick is not falling prey to those answer choices that are somewhat correct, but go a little beyond the information in the passage.

Questions typically try to trick us 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. That is, they cannot be completely backed up by the passage.

Let's have a look at the following question. I've excerpted a part of the neurosis passage.

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 ego
D. employed the term neurosis to describe certain behavior
E. posited that neurosis is not as valuable a term as id and ego

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 it doesn't assume too much. To say that the Freudian school was only associated only 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. (The Answer).

E: Nowhere in the passage does it talk about the Freudian school referring to the id and ego.

Takeaway

Becoming adept at inference questions takes practice. As long as you remember to back up your answer on information in the passage, while not making any stretches or unwarranted assumptions, you will do well.

6. Parallel Reasoning Questions

A really difficult type of question on the SAT has you take a scenario discussed in the passage and choose which of five hypothetical scenarios it is closest to. As you probably guessed, these five hypothetical scenarios make up the five answer choices.

The passage below is already quite tricky, and the question below it trickier still. So I should warn you: only attempt this question if you are already consistently scoring around 600 on the Critical Reading section. Otherwise, don't worry too much about this question type, as there may be only one or two such questions (and they are bound to be tough). Instead, spend your time on other questions in the Critical Reading section.

Today, the number of authors churning out novels is perhaps greater than at any time in history. That's not so much because talent has flourished as there are simply more books being published today. Of course with so many recent novels claiming literary prizes, one would be inclined to believe that many works published today are instant classics. I'm not sure if this is the case — or indeed if anyone today is in the position to claim any recent book as worthy of the exalted tag: "Classic." Part of the definition of a classic, after all, is that the work is still heralded decades after it was published. That the generation a few decades hence will perceive our present time as a golden age of literature is possible — though it may be too busy bestowing prizes on its own novelists.

The author's reasoning ("That's not . . . today") is most analogous to which of the following?

A. Since there are more professional baseball players today than at any time during the past, players' salaries will continue to increase.
B. Every year more people switch to electronic readers, thereby limiting the number of paperback books sold each year.
C. Though the number of grizzly bears sighted in Yellowstone increases each year, so too have the number of visitors, a fact that suggests the number of bears has not increased.
D. Scientists base the likelihood of a meteor impact based on the number of impact sites on the ground, a process that overlooks the fact that over two-thirds of the earth's surface is water.
E. Because most of the great pre-20th century artists came from humble backgrounds, the probability that an anonymous masterpiece is that of an aristocratic author is very low.

Explanation

First off, we need to dissect the reasoning in the passage. The quoted line has a theory for why so many books are getting awards: there are simply more books published than before. In other words, more books equal more awards. It's not that books today are actually better than books of previous generations.

What we are looking for in the correct answer is as follows: one thing looks like it is increasing (great books) but such an increase is actually because something more general is increasing (the total number of books).

Notice, how I made the reasoning more general, and just stuck the specifics in parenthesis. By doing so I can focus on the general logic without letting the specifics get too much in the way. Remember, we are looking for the answer choice that best "parallels" the reasoning from the passage on a general level. Indeed, a wrong answer choice will often contain the exact same subject — say, something about literature — to pull you in, though the general logic in that answer choice will be very different.

So let's take a look at each of the answer choices.

(A), on the surface, seems to use similar reasoning: compare two different periods and in the second period something (players' salaries) is increasing. But we need an answer in which something more general is increasing. Say (A) had been the total all baseball players were paid is increasing, because the total number of baseball players has increased. Then, (A) would be the answer.

(B) doesn't parallel the reasoning in the passage, since in (B) something specific increases because the general pool is increasing.

Now let's take a look at (C). I'll start by simplifying it — something you should also do with each answer choice.

More grizzly bear sightings seems like there are more grizzly bears in the park. But really there are just more people, and therefore the more people you have the more people there are to see a grizzly. So the number of sighting has increased because something more general (the total number of people) has increased. This mirrors the reasoning in the prompt.

(D) ignores a more general increase in anything. In fact, there doesn't seem to be an increase in anything at all.

(E) doesn't show a specific increase in something being part of a general increase. Sure the probability is higher that a random painting is from an artist from lowly economic background, but that doesn't match the increase in one thing leading to an increase in another, the way as it is discussed in the passage.

If you are still with me, and haven't lost your mind after sifting through all this verbiage, congratulations. But I think a quick recap is in store:

1. Skip parallel reasoning questions unless you are scoring above 600 on CR.
2. You can identify parallel reasoning questions because they come up with five random scenarios not at all mentioned in the passage.
3. Look for the general logic; do not be swayed by superficial similarities between the text and the answer choice.

The Dual Reading Comprehension Passage

So here's the skinny: there will always be two sets of dual passages, one short (30-35 lines total) and one medium to very long (60-90 lines total).

What exactly is a dual passage? Well, just as its name implies, it is a set of two passages written on a similar topic. The passages usually do not agree completely with one another, but sometimes they will agree with major aspects of an issue but have a different focus than the other.

Let's start with a short dual passage. Short dual passages are less complex because of their lengths, but what I'll talk about for the short passages also applies to long passages. Then, at the very end, I'll talk about some particulars of long dual passages.

Short Dual Passage Excerpt

Passage 1

I will grant Fitzgerald this much: Somehow, in the five years between his literary debut and The Great Gatsby, he taught himself to write. This Side of Paradise is intermittently brilliant but terrifically uncontrolled. Gatsby, by contrast, is focused and deliberate: a single crystal, scrupulously polished. It is an impressive accomplishment. And yet, apart from the restrained, intelligent, beautifully constructed opening pages and a few stray passages thereafter, Gatsby as a literary creation leaves me cold. Like one of those manicured European parks patrolled on all sides by officious gendarmes, it is pleasant to look at, but, like the pages of Fitzgerald's work, you will not find any real people inside.

Passage 2

One of the main charges that has been leveled against The Great Gatsby is that the characters are either one-dimensional stereotypes or as ethereal as one of Jay Gatsby's many soirees. While this assertion carries some truth, it both misses much of what Fitzgerald set out to do in The Great Gatsby, and the literary aesthetic necessary to pull it off. The 1920's flappers were themselves playing a part, one that did not allow for much introspection. Even Jay Gatsby at his most confessional inhabits a role he has artfully crafted. Perforce, Fitzgerald must create characters who are not wrestling with existential doubts, and who must somehow rise above them, but who serve as a backdrop for a time and a place.

You might think this is an awful lot to read, but the above is actually a short dual passage. Regardless of whether the passages total 15 lines or 25, each short dual passage will be followed by exactly four questions. Most of the time, half the questions will deal with both passages, and half the questions will deal with just one passage. Sometimes, you'll get three questions dealing with both passages. In general, questions dealing with both passages tend to be more difficult than questions dealing with just one passage. It makes sense, right? Comparing what two people are saying is never easy.

Here is an example of just such a question:

> *How would the author of Passage 2 most likely respond to the assertion in the last line of Passage 1 that "you will not find any people inside"?*
>
> A. Not all characters in *The Great Gatsby* lacked emotional depth.
> B. Many of the characters in *The Great Gatsby* are caricatures of actual living people.
> C. *The Great Gatsby* focused more on prose style than on character development.
> D. Jay Gatsby was a fully formed character, one that evolved throughout the course of the novel.
> E. In aiming to depict a certain type of person, Fitzgerald had to sacrifice character depth.

To answer this question, you will not only have to read both passages, but will also have to have a good idea of what each author is talking about.

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 look out for this).
3. Answer the question by going back to the passage, finding relevant information, and then phrasing a response based on the text.

Application

Let's take apart the question above.

First off, let's assume you've followed steps 1 and 2, and so you have a pretty good idea what the passages are about and how they relate to each other. Now, let's take a look at the question: the quote is taken from the part of Passage 1 that talks about how the book is well-written but in one of those too-perfected gardens where people can't walk. Notice as well how Passage 1 mentions that "you will not find any real people inside" the book or the garden. At this point, a light bulb should go off in your head: *Ah, Passage 2 talks about how many of the characters lacked depth* ("a role that did not allow for much introspection").

Explanation

At this point you might by tempted to just choose (A). After all, it does talk about emotional depth. But remember Passage 2 is agreeing that many of the characters are contrived and not authentic ("even Gatsby himself"). So before heading to the answer choices, we should get some text that gives us a better sense of what Passage 2 thinks about the characters being kind of fake. Notice the last sentence. It basically says that Fitzgerald had to make characters lacking depth because their real function was to capture a time and place.

Now that we have figured out how Passage 2 would respond, we have to hone in on the right answer. (B) is very tempting because of the first few words. But notice the end: "actual living people". The passage never says this — and you shouldn't infer that just because Fitzgerald was using characters to capture a time and place that these characters represented actual people.

(C) is also very tempting (that's why it's so important to come up with the answer by going back to the passage). (C) is wrong because Passage 2 never mentions "prose style". Only Passage 1 does.

(D) is clearly wrong since Passage 2 says that Gatsby is playing a part. There is mention of how, if at all, he evolved in the novel.

(E) may not jump off at the page at you, as is the case with many correct answers. The test writers have to reword what the text is saying so getting the right answer is not about identifying a familiar word, but rather decode the words in the answer choice to see if they match the ideas in the passage. It is the wrong answers that take words directly from the text, and package them in such a way that they are not supported by the passage, yet the answer jumps out at you and implores deceptively, "Pick me."

Okay, so that was quite a lot of information for one question. But in showing you the steps, and then taking on a really hard question, you should be ready for the majority of dual passages (as long as your general reading comprehension is up to snuff!).

The Long Dual Passage

Now for the long dual passage. First off, I'm not going to excerpt a long dual passage (too many trees would be murdered in the process). Rather, I'm going to talk about how the strategy for long dual passages builds upon what we learned in short dual passages.

What you need to know

The long dual passage usually has thirteen questions. On average, four of these will apply to both passages, though sometimes there will only be three questions, and every now and then there will be as many as five.

Once in awhile, an SAT will have a long dual passage that has fewer than 13 questions. I've seen 9 and 10 question long dual passages. These passages tend not to be as long as the 13 question dual passages, though sometimes you can get as many as four questions that apply to both passages.

Strategies

#1 – Notes
Make sure you are taking either mental notes or written ones, so that you can pick up on both the issue being discussed in the passages and how the passages are different/similar. Following this method with the long dual passages is going to require a lot more brainpower and a lot more practice.

One good trick is to write, in the margins of the text, a several-word summary for each paragraph. Your goal is to be able to pick up the main ideas from each paragraph (something you should do by focusing on the topic sentences), and not get lost in the swamp of words.

#2 – Compare passages
Once you've written little mini-summaries, it should be much easier to compare passages. Ultimately, you want to be able to process the passage in your head.

Doing so shouldn't take too much time, and indeed will save you a lot of time when you get a question dealing with both passages. You won't find yourself going back through both passages and floundering about looking for the relevant information.

#3 – Answer both passage questions first
Since you've just been reading about both passages, it is a good idea to try to answer the questions that ask about both passages at the same time. If you struggle to do these questions, just come back to them later. This step isn't too important, and you might find that answering the questions one after the other (in order) works best for you.

#4 – A passage at a time

This strategy is ONLY for those who are slow readers. If this sounds like you, then read one passage at a time and answer the questions that relate to that passage *before* reading the second passage and answering all the questions relating to that passage. Questions are always in "chronological order", meaning that you'll get all the questions dealing with passage 1 first. Though a general question relating to just one passage or even one relating to both passages may pop up, just skip it and come back to it later, if you have time.

And that is the whole point of this strategy. It will allow you to answer at least those questions dealing Passage 1. You don't want to run out of time because you read both passages, and therefore only got to answer a few of the questions.

Takeaway

The main point here is practice, practice, and more practice. Dual passages are not easy, and require you to store a lot of information in your head at one time. But if you stick with it, you'll start to get better at these passages.

Common Reading Comprehension Traps

The Traps

1. Extreme Language

Often, the SAT will make an answer that could debatably be correct by adding a word such as "never", "always", or simply, "no". Remember, the correct answer has to be backed up by the text. But an extreme answer is one that usually doesn't have text to back it up. The correct answer is usually one that is safer, in the sense that it can be directly supported by a phrase in the passage.

That extreme answers are usually wrong is not some secret information that only I — the SAT guru — know and am sharing to you lucky initiates reading this. "Avoid extreme answers" is advice dished out by almost every SAT expert — so-called and actual. The College Board knows this so they will every now and then throw in a passage in which the author is actually saying something extreme. The most common example is this angry scientist who calls most theories about children and toys hogwash. Hogwash is an extreme word, but it is in the passage. Therefore, the answer — which regards the author's tone — is going to be extreme.

So don't just eliminate an answer because it is extreme. Be on guard, check the passage, and if there is no clear supporting text choose another answer.

2. Perfect answer … except that one part (The Rotten Fruit)

You know how, when you buy a fruit or grab one to eat, you turn it around a few times? You are inspecting it for the rotten spot. If you find that spot, you usually toss the fruit aside for some hapless soul, one not so intent on looking for rotten spots, to grab.

With the SAT answer choices, you should never look for those few words that you are not right; you should always look for that rotten spot (even if it is only one word) that is wrong. It only takes one word to make an answer choice wrong, and that word can be hiding in a pile of words, so read carefully.

3. Uses words from around quoted lines

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 take words that appear in the very lines being quoted and throw them into an answer. Often that answer choice will say the very opposite of what that passage is saying. But if you are not processing the entire answer choice and just grasping on to those familiar words, you are likely to get trapped.

4. 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 even answering the question it can't really be the answer.

5. True in the real world
Another tempting wrong answer choice involves an answer choice that just screams, 'Pick me!' After all, the answer just seems right — right in the way that no one could really disagree with it. And that's the problem: the answer choice is right in a general sense but is not at all supported by the passage. Again, the lesson is always to back up your answer with specific information in the passage.

Below is a short passage (don't worry, I won't torture you with a 90-liner just to go through the common traps). Your goal is to read the passage and answer the question (duh!), but, more importantly, to categorize the wrong answers based on the five categories above. Once you've done this, look at my analysis after the passage to see if you are right.

Practice Passage

Cities, the dense agglomerations that dot the globe, have been engines of innovation since Plato and Socrates bickered in an Athenian marketplace. The streets of Florence gave us the Renaissance, and the streets of Birmingham gave us the Industrial Revolution. The great prosperity of contemporary London and Tokyo comes from their ability to introduce new thinking. Wandering these cities—whether down cobblestone sidewalks or grid-cutting cross streets, around roundabouts or under freeways—is to study nothing less than human progress.

The author of the passage would agree with which of the following?

A. City governments often limit the flow of ideas.
B. Cities have always been centers of innovation.
C. Progressive ideas are not generated outside of cities.
D. Understanding the history of a city can provide insight into a human process.
E. There is no connection between ideas and the financial health of a city.

Turn the page for the solution!

Solution

Before I get to the correct answer, let's take a look at each answer choice.

(A) Just sounds great. Come on! Think about all those city governments that just aren't functioning well. Corruption, ineptitude, and, sure, the limited flow of ideas. Sounds like a reasonable thing to say about cities. And, hey, the answer choice is not extreme. It has the word "often". But wait a second. Does the passage even say that? Doesn't the passage say that cities like London and Paris are known "to introduce new thinking"? Indeed, (A) is incorrect, but what makes it so tempting is that it sounds like something that is true in the real world: Category #4, from the list above.

(B) There it is, just screaming at you "always." But is it that obvious? My eyes also see the words "centers of innovation", which is just so what the passage about. And that's why extreme language is so dangerous. It's usually stuffed in their next to some words that are supported by the passage. Based on the text, however, we cannot say that cities — all cities, everywhere, at all times — have been centers of innovation. Category 1.

(C) Just because progressive ideas ARE generated in the city does not mean that they are NOT generated outside of the city. The passage is only saying that cities tend to be centers of innovation. It says nothing about what happens outside the city, so we can't assume that no progressive ideas come from elsewhere.

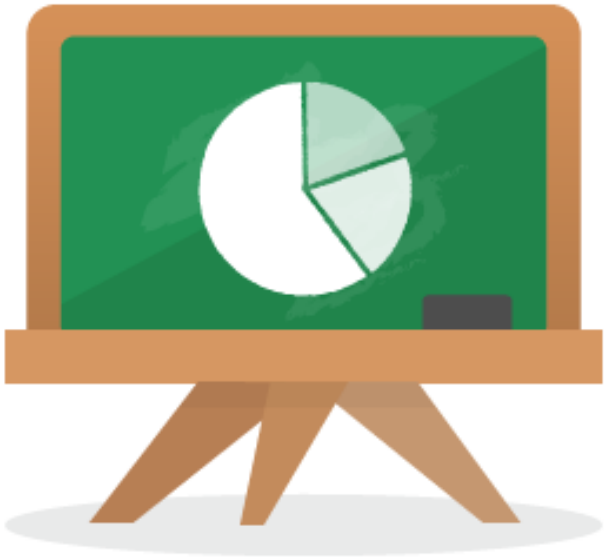
(D) Is vaguely worded. "A human process"? Geez, talk about vague. But that's the thing with a right answer choice. It usually isn't going to take words from the text, in this case "innovation", "progress", etc., and just repackage them in the answer choice. Well, actually it will — for a wrong answer choice. For the right answer choice, the SAT tends to re-word information from the passage, but in a way that doesn't jump out at you. Here, "a human process" equals "innovation". Also, notice how the answer choice is not worded really strongly - "can provide insight". And it's hard to disagree with (D), since the passage is basically saying that learning about cities can help us understand (provide insight) human innovation.

(E) Is pretty flat-out wrong. Notice "financial health" isn't mentioned at all in the passage. We can call this category 6: not mentioned in passage. Perhaps, more subtly there is the word "no", which is very strong. And is typically — but not always — used in a wrong answer choice. Since "no" is an example of extreme language, (E) also falls into category #1.

Takeaway

Not every category of wrong answer choices/common traps popped up in our little exercise. I'd recommend trying a medium-length passage (one with around 6-8 questions). Remember, don't just answer the questions, but also categorize the wrong answers based on the categories above. You may even notice that a wrong answer choice doesn't really fit into any of the categories above. Or, in some cases, it may overlap a couple of the categories.

Math



Intro to SAT Math

So first thing: SAT math is not at all like your typical math class. Show your work, step by careful step? Hah! Those steps count for nothing on the SAT — unless you get the correct answer. Setting up equations? It doesn't really matter how you get the answer — as long as you get the answer. In fact, the SAT math section is more of a test of the following things:

1. Can you avoid carefully placed traps?
2. Can you analyze the answer choices to eliminate a few of the answer choices?
3. Can you find a quick solution?

To apply these three points, let's take a look at a tricky word problem (something the SAT is fond of putting on the test):

> *Myra has a drawer filled with 3 pairs of socks, 5 blouses, and 3 jeans. She can wear a combination of any of the socks, blouses, and jeans, except for her one pair of charcoal jeans, which do not go with her silver blouse. How many possible outfits can Myra don?*

A. 10
B. 11
C. 42
D. 45
E. 57

One option is to write out all the possible outfits (Socks 1, Blouse 1, Jeans 1; Socks 1, Blouse 1, Jeans 2; etc.). Doing so would totally go against point 3 — and you'd probably end up getting the problem wrong, as well as running out of time for the other questions.

Another approach is to reason that you are combining outfits — therefore just add (3+5+3 = 11). And, lo and behold, there is the answer (B). But, oops, you just forgot to take into account the bit in the problem about her charcoal jeans and silver pants fashion faux pas. So the answer must be 11 – 1= 10, answer (A).

The reality: *Both are wrong*.

So #1 is very important. Avoid traps.

Of course it helps to know what is called the Fundamental Counting Formula. Basically, when you are looking for the different number of ways to combine things you multiply, not add. Imagine you were just focusing on the 3 pairs of socks and 5 blouses. Each pair of socks can match with 5

different blouses. There are 3 pairs of socks: 3 x 5 = 15. Throw in the jeans and you get a total of 3 x 5 x 3 = 45 outfits.

Look back at #2. Which answer choice can we eliminate? (E). It's way too high. In fact, we could also eliminate (D), because we know we have to subtract some number of outfits from the total of 45. Which answer is slightly lower? (C) is the only one even close to 45. So that's our answer.

The math/logic version: we have to subtract the total number of outfits that includes charcoal jeans and silver blouses. You may be tempted to think the answer is 1. But remember, there are three pairs of socks for the charcoal jean and silver blouse get-ups. So we get 45 – 3 = 42 (C).

What's the takeaway from all this? You have to change your thinking and not get hung up creating an equation or recalling some handy formula. You also have to be able to think on the spot. You didn't really need the Fundamental Counting Formula to get the answer. Remember how I reasoned out the logic behind this concept just by imagining the number of outfits we get from combining socks and blouses?

Anyhow, that question was tough (I like to keep students on their toes!) So let's try an easier one. But remember, the logic of the three steps still applies.

> *A sweater goes on sale for 10% off. After a few days, it goes on sale for an additional 10% off and is sold. If the original price of the sweater was $100, what is the selling price of the sweater?*
>
> A. 68
> B. 80
> C. 81
> D. 85
> E. 90

Your first instinct is to just add up the percentages and think that the sweater is 20%. Therefore, (B). But the SAT is never that easy. The trap is that you first have to take 10% off $100, which is $90. Then 10% off $90, which is a $9 discount, giving us $90 – $9 = $81 (C).

Not all problems are going to be word problems, of course. But you can bet that each problem is going to have answer choices waiting to trap you. And you can also bet that you can be on guard against these traps by using the answer choices to your advantage. Look at which ones are too big, too small, or, as we saw in the sweater problem, too easy.

How Difficult is SAT Math?

Just how hard is SAT math if it doesn't test really high-level math topics? It doesn't even get to trigonometry. Yet, at the same time, it's meant to challenge even the most advanced math students. There's a pretty clear problem there. How do you sort the best junior or senior year math students from the 9th graders who are constantly sneaking in to take the SAT? (Alright, so that doesn't really happen).

In order to assess students well, the test-makers resort to other ways of making SAT math difficult.

Complicated question setups

Even the most astute students find that sometimes the hardest part is just digging through all the information in a convoluted word problem. Instead of simply giving you an equation or providing a figure, the whole thing will be written out in sentences, and it's up to you to set up the math or draw the situation. That can be seriously difficult, depending on how complicated the equation or picture is.

Topics you learned three years ago

Learning math is a cumulative process, for the most part; what you studied in 8th grade gets used in your 11th grade math class. But that's not always true, and if it's been three years since you've even looked at shapes, you might be a little hazy on your SAT-type geometry.

But this situation is pretty easy to get around, thankfully. All you have to do is review.

Combining knowledge

Okay, so you know how to deal with average rates. Can you work with them if there are two variables in the picture? Or maybe you'll get a geometry problem that includes a few different types of shapes. Or maybe the SAT graph you're facing is spiced up with a little geometry to boot.

Difficult SAT math questions might have a number of steps. Getting to one correct answer in a more difficult problem might involve three or four times as much scratch work as finishing a question at the beginning of a section.

The key to problems like this is to take them one step at a time. Don't take shortcuts unless you're 100% sure that you're not going to slip up. Write everything out, and always put parentheses around any terms that you plug in so you don't make the classic positive/negative mistake. The good news is that there are also ways to improve your SAT math skills. :)

Calculators

Yes, you can use your calculator on the SAT. Did you think that the College Board gods were so cruel? You can even use a graphing calculator, which you may be able to use for a graph question (although it's really not necessary) or a question about a quadratic equation.

Calculators can only be used on the math sections, though. On every other section, they'll have to be turned off and put under your desk, so you don't try something shady like using a dictionary app on the verbal sections.

Good Calculators and Bad Calculators

Remember that you can't use your phone as a calculator on the SAT. You can't even take the phone into the building, in some cases. Most schools will allow you to keep your phone on you (there are simply too many students to check everybody) but if they see it at all, they will take it away from you, cancel your scores, and send your phone off to be inspected (that includes during breaks). It may feel weird to walk around without a phone, but you'll have to leave it turned off in your bag or even at home on the Saturday of the test. That's also true of any other electronic devices, including iPads, laptops, mp3 players, and cameras.

So if your calculator seems like it has a little bit of computer blood in its veins (if it has a touchscreen or internet access, for example), then it's probably not acceptable for the SAT. Check the list of acceptable SAT calculators if you're not sure.

Meanwhile, you shouldn't bring a refrigerator magnet calculator, or any other four-function calculator. They're allowed, of course, but they're not practical for SAT math. If it can't find the square root of 289, it's no good.

Let's make it nice and clear. Here's what you need from your SAT calculator:

- The main four operations: addition, subtraction, multiplication, and division (Duh.)
- Exponents and roots (it helps if you can find $4\sqrt{256}$, for example.)
- Ability to backspace (some cheap calculators only have a "clear" button, which slows you down.)

Here's what might be nice to have, but isn't necessary:

- Graphing
- Solving an equation for a variable
- nCr and nPr operations for combinations and permutations. Most scientific and all graphic calculators have these somewhere, even if you haven't noticed them.

Here's what you can't have:

- Internet
- Touch screen
- Alphabetic keyboard
- Anything that doesn't look like a normal calculator, really

Non-calculator tricks

Going straight to your calculator after reading each question is a bad habit. Yes, on the SAT, calculators will cut down the time it takes to do some calculations. And yes, they can keep you from making some simple mistakes. But if you start punching in numbers before you've seen the bigger picture, you're most likely just going to waste time. The calculator doesn't help you unless you already know why you're using it. If you don't understand how to get to the answer, then do a few things:

- Check if you can plug in numbers
- Check if you can eliminate answer choices
- Draw word problems
- Fill in measurements on geometry problems

Those strategies might give you a clearer picture. Your calculator, meanwhile, won't. Altogether, you should only really have it in hand for about a fifth of the time or less. When I take SAT, I only use a calculator for one or two questions on the test. And even for those questions, the calculator is just for checking whether 61 is prime, for example (doing a bunch of quick, basic division) or for making sure I add right when I sum up 4 + 17 + 32 + 9, or anything similar.

The SAT is not a calculator-based test. Calculators are only important for a pretty small handful of problems on the SAT.

Don't upgrade to a nicer calculator

Basically, the calculator is so inessential for beating the SAT that the only reason you would buy one is if you don't own a calculator at all. If you do have a calculator that is allowed for the test, then you're going to use that one. It's more important that you're comfortable with the calculator you have than it is to have a fancy, powerful machine. That power won't really help. The SAT is a test of your knowledge and puzzle-solving skills, not a test of your familiarity with advanced calculator techniques.

Number Basics

What do you need to know for the SAT on a basic level? Well, below is a pretty good answer. Though the information below won't pertain to every question, it includes important fundamentals/terms that you should know walking into the test.

Prime numbers

A prime number is a number divisible by itself AND 1.

1 is not a prime number because 1 IS itself. Don't worry if your head can't wrap around that logic. Just remember, 1 is not a prime number.

2 is the lowest prime number and the only even prime. It is good to be familiar with the prime numbers up to 30, though you don't have to memorize them.

Multiples, divisors, and factors

A multiple of n results if you multiply n by any positive integer. For instance:

3 x 1 = 3

3 x 2 = 6

3 x 3 = 9

3 x 4 = 12

These are all multiples of 3.

A factor is a smaller part of a larger number. Mathematically, factors are the numbers that form a larger number when you multiply them. In the example using 24 below, '2' and '12' are factors of '24' because when you multiply them together you get 24.

24: 1, 2, 3, 4, 6, 8, 12, and 24 are factors of 24 (note that '24' is both a factor and a multiple of '24'. In math terms, for every integer n, n is both a factor and a multiple of itself.)

The prime factors of a number are the factors broken down to prime numbers. To find the prime factors, choose two factors of a number, say '3' and '8' (3 x 8 = 24). Keep figuring out the factors for the number(s) that remain that are not primes. '3' is a prime; however, '8' is not. It can be broken into 2 x 2 x 2. Therefore, the prime factors of '24' are 2, 2, 2, and 3.

Evens and odds

Odd + odd = even

Odd + even = odd

Even + even = even

Don't feel you have to memorize these. You can just plug in any odd or even number to derive the relationships.

Percent fraction decimal conversion

1% = $\frac{1}{100}$ = *.01*

10% = $\frac{1}{10}$ = *.10*

50% = $\frac{1}{2}$ = *.5*

Adding fractions and multiplying factions

A quick trick for adding two fractions in which the numerator for both is '1':

The numerator equals the sum of the numbers in the denominator; the denominator is the product of these two numbers. In the fraction below, all I have to do is add 2 and 3 for the top (giving me 5) and multiply 2 x 3 for the bottom (giving me 6).

$$\frac{1}{2}+\frac{1}{3}=\frac{5}{6}$$

Some other examples:

$$\frac{1}{4}+\frac{1}{6}=\frac{10}{24}=\frac{5}{12}$$

$$\frac{1}{5}+\frac{1}{7}=\frac{12}{35}$$

$$\frac{1}{3}+\frac{1}{4}=\frac{7}{12}$$

For multiplying fractions, just multiply across the numerator and across the denominator.

$$\frac{2}{3} \times \frac{4}{5} = \frac{6}{15} = \frac{2}{5}$$

$$\frac{3}{10} \times \frac{5}{2} = \frac{15}{20} = \frac{3}{4}$$

$$\frac{1}{2} \times \frac{1}{4} \times \frac{1}{2} = \frac{1}{16}$$

The Dreaded Exponent

Exponent basics

Exponents often scare the bejeezus out of students. The word exponent alone conjures up numbers so big that they seemingly dwarf the number of atoms in the known universe. But do not fear: there are no atoms on the test, and the exponents on the SAT deal with far smaller numbers.

Let's rewind to well before you started thinking about the SAT. Do you remember learning addition and subtraction? Alright, so it was a long time ago, and most of us don't have very clear memories from first grade, other than that time Amy Carson ate a dead fly off the radiator and you got in trouble for it. But you probably remember being posed with a question along the lines of, "If I have 30 gummy bears, and you eat the arms off 17 of them, how many gummy bears that can do pushups do I have left?" An unimaginative kid might've said zero, believing gummy bears don't buff up, but the rest of us learned how to "take away" using concrete images like that.

We could picture the situation that the equation described. Moving up to multiplication, it was still relatively quick to find real world applications. By the time we got to exponents, though, things started getting kind of abstract, especially when dealing with roots.

So knowing how to deal with exponents on your SAT might get you a little confused at points if you can't remember a few rules that aren't so easy to figure out by yourself. You'll need to remember them, even if you don't quite understand why they are true.

Radicals other than square roots

Numbers over radicals occasionally throw people off. Just remember that it's the opposite process of exponents. So if 2^3 is 2*2*2=8, then $\sqrt[3]{8} = 2$. This is totally fundamental, but it's a good place to start.

Fractions in exponents

These are just the same as above. If you see a fraction in an exponent on your SAT, go right ahead and convert it into a radical. So $8^{1/3}$ equals 2, just the same as $\sqrt[3]{8} = 2$.

If you have something other than a 1 in the numerator, like $8^{2/3}$, then just put the denominator into the radical and keep the numerator as an exponent: $\sqrt[3]{8}^2$. From there, it doesn't matter which operation you carry out first. $2^2 = 4$ just as root $\sqrt[3]{64} = 4$.

0 in an exponent

Any number to the 0th power is one. 2^0=1 and $9{,}999^0$=1. We don't need to worry about why for the purposes of the SAT (but if you enjoy math puzzles and want to figure it out, here's a hint: it has to do with the next fact).

Negatives in exponents

Careful not to get x^{-2} confused with $x^{1/2}$. Instead, $x^{-2} = \frac{1}{x^2}$. Although fractions in exponents are tested more often, negatives are also liable to show up on your SAT, so you should get comfortable with this if you aren't already.

How you can imagine that using gummy bears, I'm not sure, but that doesn't make it difficult to use — and that's true for all of the rules above. As long as you know the facts, you can work pretty easily with exponents on your SAT that might seem daunting at first.

The 4 Rules of Exponents

You can almost bet there will be an exponent problem on the SAT. In fact, you can bank on there being several. Here is what you've gotta know:

#1: The base (it's the big number)

An exponent all alone would be nothing more than a tiny speck floating in space. Every exponent needs a base:

3^2: *base 3*

2^5: *base 2*

#2: Don't add the bases

$3^2 + 2^2$ *DOES NOT equal* 5^2

$3^2 + 3^2$ *DOES NOT equal* 6^2

#3: When multiplying similar bases add the exponents

$3^2 \times 3^5 = 3^7$

$2^4 \times 2^4 = 2^8$

#4: When raising an exponent to an exponent multiply the exponents

$(4^2)^3$ *DOES NOT equal* 4^8

$(4^2)^3 = 4^6$

Practice using these rules on questions in the College Board book and you should be ready for all the easy and medium level problems on the SAT.

Combining exponents

While the basic rules of exponents will really help on your SAT, you're also going to need to know how to combine exponents. There are a number of common mistakes here, and they'll all lose you points if you're not careful.

When to add or subtract exponents

$$x^y \times x^z = x^{y+z}$$

$$\frac{x^y}{x^z} = x^{y-z}$$

If you're multiplying two powers with the same bases (which is x, here), then you can just add the two exponents. Let's use actual numbers:

$$2^2 \times 2^3 = 2^5$$

It's pretty easy to see why if we expand the equation.

$$2^2 = 2 \times 2$$

$$2^3 = 2 \times 2 \times 2$$

$$2^5 = 2 \times 2 \times 2 \times 2 \times 2$$

Similarly, if we divide powers that have a common base, then we can just subtract the exponent in the denominator from the one in the numerator.

$$\frac{2^3}{2^2} = 2^1 = 2$$

Be careful that you only do this when the bases are the same!

When to multiply or divide exponents

$$x^{y^z} = x^{(y \times z)}$$

$$\sqrt[z]{x^y} = x^{\frac{y}{z}}$$

When you have a power of a power, you can multiply those exponents. Don't add them!

Since roots are the opposite operation of powers, just like division is the opposite of multiplication, you can divide an exponent by the radical.

Again, if we use real numbers and expand it, the reasons why are pretty clear.

$$(2^3)^2 = (2 \times 2 \times 2) \times (2 \times 2 \times 2) = 2^6$$

$$\sqrt[3]{2^6} = \sqrt[3]{(2 \times 2) \times (2 \times 2) \times (2 \times 2)} = (2 \times 2) = 2^2$$

When to distribute exponents and roots

$$(xy)^z = x^z y^z$$

$$\sqrt[z]{xy} = \sqrt[z]{x}\sqrt[z]{x}$$

If you have an exponent outside of parentheses containing two multiplied numbers, you need find the power of both factors.

$$(2 \times 3)^2 = 6^2 = 36$$

$$(2 \times 3)^2 = 2^2 \times 3^2 = 4 \times 9 = 36$$

$(2 \times 3)^2 \neq 2 \times 3^2$ *The FOIL method makes it pretty clear why that doesn't work.*

Radicals follow the same rules. If you have numbers under the radical sign that are added, then you can't just find the root of each one. You have to combine them first.

But you *can* take a number under a radical, break it into factors, and simplify it that way.

$$\sqrt[3]{56} = \sqrt[3]{8 \times 7} = \sqrt[3]{2^3}\,\sqrt[3]{7} = 2\sqrt[3]{7}$$

And that comes in handy on the SAT.

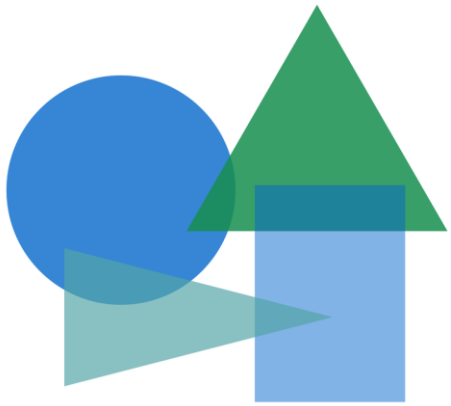
Keep in mind:
Don't treat exponents and radicals like other operations — they have their own set of rules to follow.

SAT Geometry

Geometry Math Formula Sheet

Many students are blown away by the fact that ***every SAT Math Section has a geometry cheat sheet at the very beginning*** (hopefully, they pick up on this before they take the actual test).

Today, I'm going to do better than just rehash those formulas. I'm going to tell you which ones you should memorize (since it'll make you faster on test day) and which ones you can refer back to (since you don't want to cram more unnecessary information in your head).



Geometry formulas provided for you on the SAT

1. Circumference and area of a circle

Recall this formula as naturally as you can recall your home address. It's easy:

$Area = \pi r^2$

$Circumference = 2\pi r$

And don't mix the two up!

2. Area of a rectangle

This one should be pretty intuitive. To find the area of a rectangle/square multiply length x width (they are the same in a square). Perimeter, which is not part of the SAT cheat sheet, is found by adding the length and width and multiplying by 2.

3. Area of a triangle

$$\frac{1}{2}bh$$

It's of the base x the height. Don't waste time flipping the pages back and forth. Know this cold.

4. Volume of a box

Don't memorize this—just refer back to the page if necessary. One thing you don't get is the surface area of a box. For a cube, things are much easier: volume is s^3, in which s = the side; surface area is $6s^2$.

5. Cylinder

You probably won't see a problem relating to a cylinder. Anyhow, it's not that easy to memorize. So it's great to see it as part of the cheat sheet at the beginning of each section.

6. Pythagorean Theorem

Know this cold. And be fluent and being able to find the missing sides.

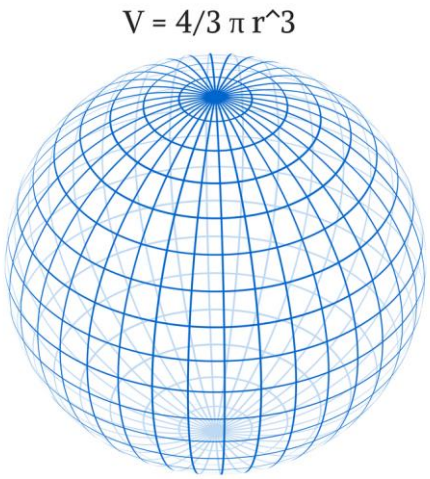
7. 30:60:90 triangle

Don't feel you have to know this cold, though it will make things faster. Just make sure you know what everything stands for when you refer to the diagram.

8. 45:45:90 triangle

As a tutor, I always want to make sure my students know this well. But at the end of the day, if you don't know memorize the formula, you can just use the cheat sheet. Just make sure you know how the sides are connected.

For instance, sometimes you can have a $\sqrt{2}$ as one of the sides. The relationship between the two equal sides and the hypotenuse is that the hypotenuse will always be $\sqrt{2}$ times greater.



Formulas not on the SAT's math cheat sheet

1. **Volume of a cone:**

$$\frac{1}{3}\pi r^3$$

2. Volume of a sphere:

$$\frac{4}{3}\pi r^3$$

3. Average:

Total/# of numbers (This is the only non-geometry formula. It's very important that you know this. I'd recommend memorizing it, or at least understand how it is derived).

4. **Length of the longest possible line you can draw between two points in a cube:**

$$s\sqrt{3}$$

Geometry basics

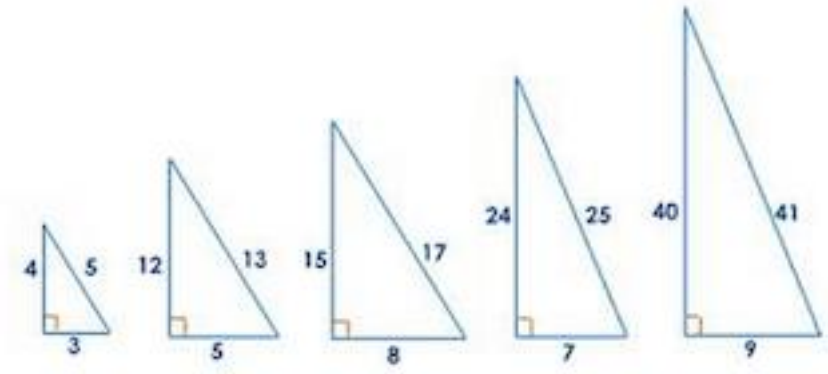
About a quarter of SAT math problems need some geometry skills to be solved, and most of those ask you to use geometry knowledge alone. So you could say that getting all of the geometry questions right would earn you about 150 points on the test, although if you're wondering how to calculate SAT scores, it's really not that simple.

Those SAT geometry questions are mostly about three topics: triangles, circles, and angles. When students ponder the typical question, "how hard is SAT math", terrible visions of shape monsters often appear in their heads.

Triangles (and angles) in SAT geometry

The most important of those three is definitely triangles. The SAT loves triangles. So much, in fact, that half of the reference information they give you at the beginning of each math section is about the measurements of triangles.

Specifically, the SAT uses a lot of right triangles in questions. You'll get plenty of chances to use the Pythagorean theorem. If that sounds dull, then make it easier by knowing some Pythagorean triples ahead of time. Here are a few:



The smaller the triples are, the more common they are on the SAT (3-4-5 right triangles are the most common). Of course, they show up as their multiples pretty often too; instead of a 3-4-5, you might see a 6-8-10 triangle. If you have two sides of a right triangle that match up to any of the ones above, then you know the third side even without using the Pythagorean theorem.

The special right triangles they give you in the reference info are also among the SAT's favorites. Recognize and know the proportions of 30˚-60˚-90˚ and 45˚-45˚-90˚ triangles and you'll save yourself time and energy both.

You might not even see a triangle at first. A lot of times, the question doesn't ask you specifically about a triangle, but if you add a bit of info to the figure (or draw your own figure), you'll see a triangle appear. And more often than not it's going to be a right triangle.

Circles in SAT geometry

Circles don't just appear like triangles do. They'll be given to you specifically, so when you see the word circle, a picture of one, or a picture of a piece of a circle (like an arc), then you should be pretty clear on where to start.

Take a quick look at the formulas for circle measurements.

Diameter = $2r$

Circumference = $2\pi r$

Area = πr^2

Area of a cylinder = $\pi r^2 h$

What do you see in common? Before you do anything else, check to see if you can find the radius of a circle on the SAT. It's probably going to help you along to the answer.

Also, it's good to remember a couple other things about the radius:

- Any two radii of one circle are equal in length
- A line tangent to the circle is perpendicular to a radius line

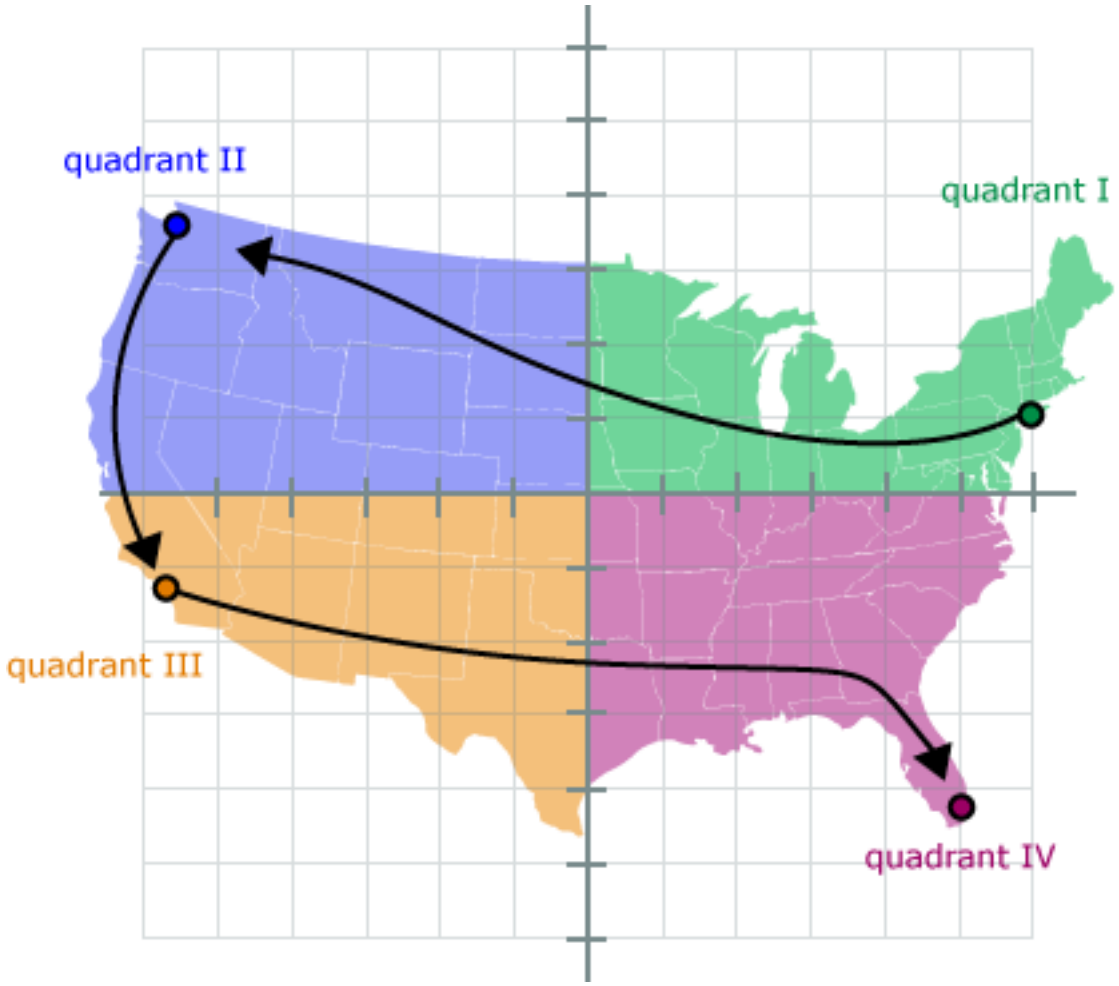
Using circles and triangles on the SAT

There are a lot of problems that aren't as simple as "What is the length of side XY?" or "What is the area of circle O?" on the SAT.

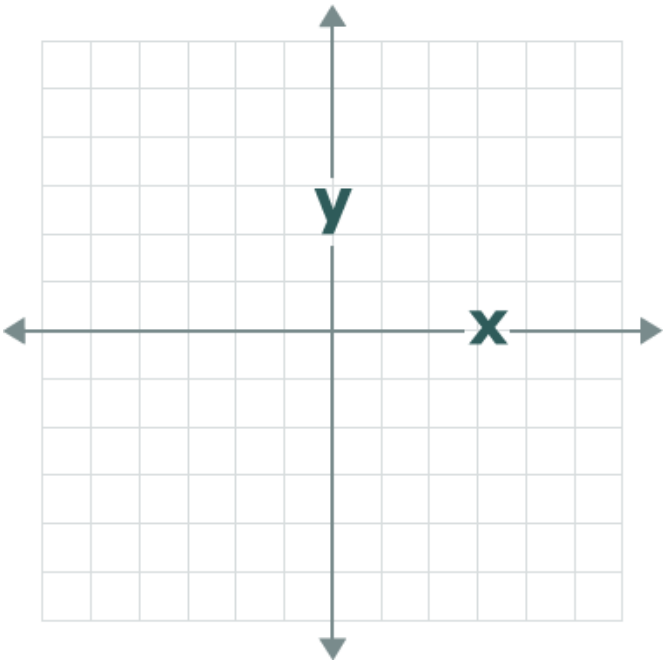
In fact, you'll need to combine those skills on several SAT questions. Be ready to move information around, and always remember to write in any information that's not given to you in the figure. If tables and charts are more your fright, check out SAT Charts for more help there.

Coordinate geometry basics

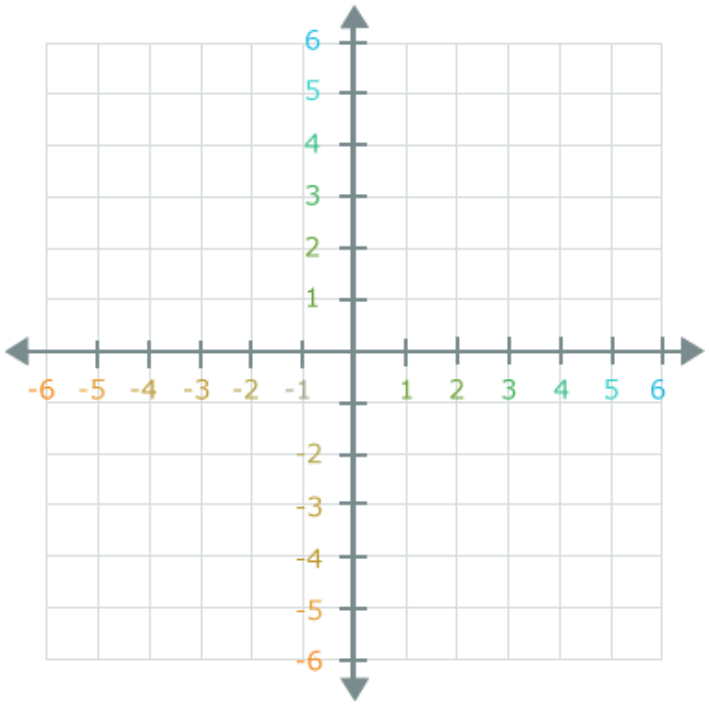
The first thing you got to know is that there are four quadrants in a coordinate plane. What's wacky is how these quadrants are arranged:



A good way to think of it is to imagine yourself on a cross-country trip in which you start off in New York (the northeast = quadrant I), drive on over to Seattle (the northwest = quadrant II), then drive down to Los Angeles (southwest = quadrant III) and finally end up in Miami (southeast = quadrant IV).

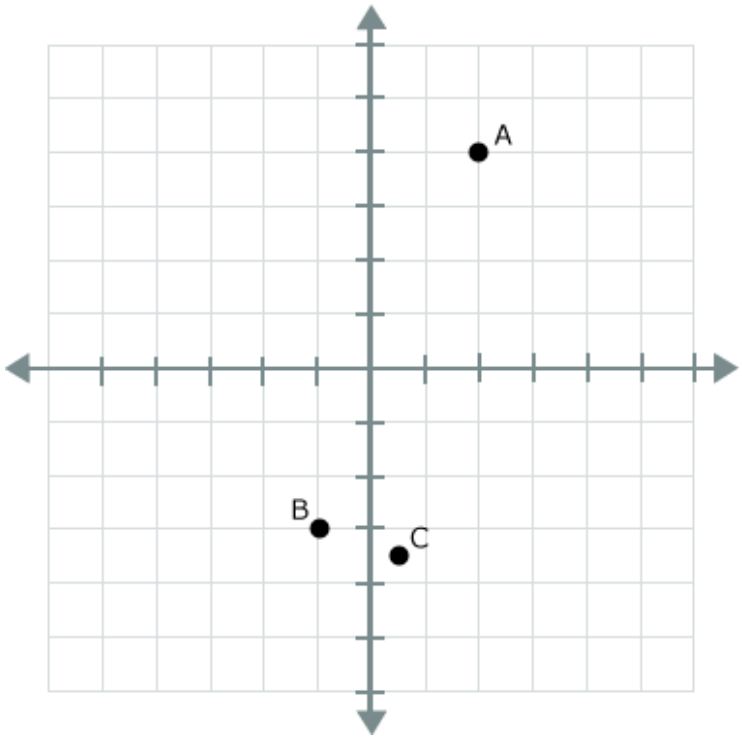


The next two important things you have to learn are the x-axis and the y-axis. The x-axis runs from left to right (this is the horizontal line), whereas the y-axis runs up and down (this is the vertical line).



Next, it's all about integers, or what I call "people numbers": you can have one more person or one person fewer. However, you can't have .3 people or $\frac{1}{2}$ a person. In coordinate geometry land you'll have integers running from left to right, like on a number line, from negative to positive. On the left hand side the negative numbers will decrease until they hit the middle of the graph (the intersection of the x- axis and y-axis — of what's know as the origin). At that point, you'll see the number zero. Then the numbers continue up from zero (1, 2, 3, etc.).

For the y-axis, the vertical one, the negative numbers start at the bottom, decreasing until they get to zero. Then, from the origin going up, each number will go up by one for each "notch" in the graph.

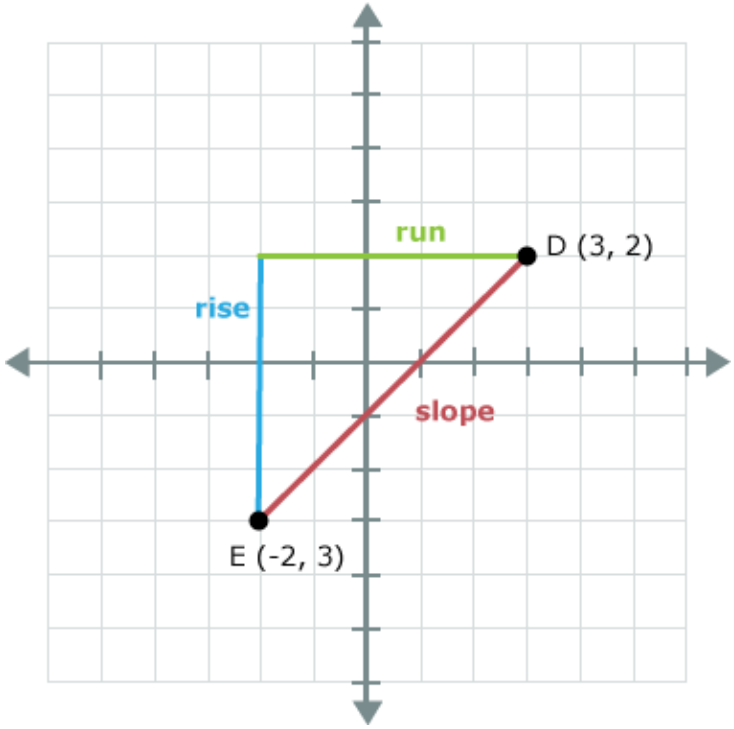


Next up are the coordinates. Coordinates are always presented as two numbers (x,y), the first number corresponding to the x-axis, and the second one to the y-axis. For instance, point A has the coordinates (2, 4). That is you "go over" two points to the right on the x-axis and up four points on the y-axis. Point B has the coordinates (-1, -3).

Even though the numbers on the x-axis and y-axis are always broken down via integers, coordinates can have fractions, as point C shows (1/2, -7/2).

The slope

Now that we've gone over the "basic basics", next up is something that might sound familiar to you: rise over run. You've probably had this hammered in for so long you can't even remember when you first heard it. Sadly, most people forget exactly what it means. So here it is: you can figure out the slope of a line by seeing how many squares on the coordinate plane one point is above the other. In the graph below, point D has a y-coordinate of 3 and point E has a y-coordinated of -2. So point D is five squares higher than point E. This is the "rise", how far up it goes from the lowest point, is 5.



When you are figuring out the slope, which consists of a fraction, always put the "rise" in the numerator.

As for the "run", it is how far away two points are in a left to right sense. If you count how many squares point D (3, 2) is from point E (-2, -3), in a left to right sense, you'll get the "run", which in this case is 5. I know, you are probably thinking, why the heck is that called the "run". You can run from left to right, right to left, up to down, and just about everything in between. It's just one of those conventions you have to learn. The key is you always put the "run", or whatever you want to call it, in the denominator.

You might have already figured out that there is a faster way of doing this besides counting squares. All you have to do is take the y-coordinate from point E and subtract it from point D, which gives you (2-(-3)) = 5. And to find the "run" just subtract the x-coordinate of point E from the x-coordinate of point D, which gives you (3-(-2)) = 5, so the slope is 5/5 = 1.

Now as far as the slope goes, I've left something out that would make your geometry teacher's face turn red.

$$Slope = \frac{rise}{run} = \frac{y_2 - y_1}{x_2 - x_1}$$

As you can tell, this is pretty ugly. It's useful for sure, but it's just not that most straightforward way of dealing with the slope. For one, students usually get flustered trying to remember which one is the y_2 and which one the y_1. It actually doesn't matter — as long as you make sure to start with the same point for both coordinates.

Try it with points D and E from the previous page. It's okay to switch the points D and E around (which is 1 and which is 2), as long as you do it for both coordinates. You will end up getting the same thing.

Algebra

The basics

The good news: the algebra tested on the SAT is pretty straightforward. The bad news: if you are not up on your basics, then you are in trouble. Below is the one major tip that will help you solve almost any algebraic problem you encounter.

Balancing the equation

In an algebra equation with an equal sign, think of the equation in balance. If you do anything to one side you do the exact same thing to the other side. If you multiply one side by 4, you have to multiply the other side by 4. If you subtract 3 from one side, you subtract 3 from the other side.

The goal in balancing the equation is isolation. That's right – you want to isolate x, or get x (or whatever variable happens to be in the equation) by itself. Think of the variable as the unpopular person in the room. Everyone – that is the other numbers – want to get away.

$4x + 3 = 15$

To get x by itself, first subtract 3 from both sides of the equation.

$4x + 3 = 15$

$-3 \quad -3$

$4x = 12$

Now divide both sides of the equation by 4:

$4x/4 = 12/4$

$x = 3$

Let's try one more:

$$\sqrt{x} = 9$$

Notice how x has a square root sign on top of it. We want x to be all by itself. Therefore we have to get ride of the square root sign by squaring both sides:

$$\left(\sqrt{x}\right)^2 = 9^2$$

$$x = 81$$

By correctly isolating x by balancing the equation, you are well on you way to solving most of the algebra on the SAT!

FOIL method

The SAT loves testing questions that rely on the FOIL method. A subset of algebra, FOIL relates to polynomials, and, unlike many other algebra sections, you cannot rely on plugging in (a method I otherwise encourage you to use often).

Before I tell you exactly how to use FOIL, it is important that I tell you what a polynomial is. Take a look at the equation below:

(x - y)(x + y) = 0

Remember that parentheses stand for multiplication. Multiplying x and y may seem daunting but using the FOIL method makes things easy!

Think of the position of the x's and the y's above. The first position in each parenthesis consists of x's. The last position consists of y's.' Using this logic, let's apply the FOIL method:

F: First, x^2

O: Outer, xy

I: Inner, -xy

L: Last, -y^2

Now think of the variables above as part of a large addition problem:

x^2 + xy - xy - y^2 = 0

x^2 - y^2 = 0.

Practice FOIL-ing!

(x + 2)(x - 4) = 0

F: x^2

O: -4x

I: 2x

L: -8

x^2 - 2x - 8 = 0

You can also reverse the direction in which you do FOIL, or "unFOIL".
For instance:

x^2 - 4x + 4 = 0

First, set up the parentheses.

(x - ?)(x - ?) = 0

The question marks are in the last position. When we multiply them together we get 4 (notice the +4 at the end of the equation). So we know that the last numbers (the question marks), when multiplied, have to equal +4.

Now note the -4x in the middle of the equation. The outer (x * ?) + (x * ?) = -4x. Which two numbers, when multiplied, equal +4, and when added = -4? You may have to play around with the factors a little, but since the only factors of 4 are 2, 2 and 4, 1, this problem isn't too tough. 4 and 1 would add up to 5. Therefore, 2 and 2 are the answers, giving us:

(x - 2)(x - 2) = 0

Practice question:

Which of the following is a root of the equation 2x^2 - 20x = 48?

A. -4
B. 2
C. 6
D. 8
E. 12

Turn the page for the answer and explanation!

Answer and explanation:

Which of the following is a root of the equation $2x^2 - 20x = 48$?

(A) -4
(B) 2
(C) 6
(D) 8
(E) 12

$$2x^2 - 20x = 48$$
$$2x^2 - 20x - 48 = 0$$
$$2(x^2 - 10x - 24) = 0$$
$$2(x-12)(x+2) = 0 \Rightarrow x - 12 = 0 \rightarrow x = 12$$
$$x + 2 = 0 \rightarrow x = -2$$

You can also watch the video explanation here.

Combination vs. substitution

Algebra is by far the most important part of SAT math. Isolating a variable is a step in many SAT math problems, depending on whether or not you use elimination strategies. That's as it should be; after all, you've been doing that in math class for the entirety of your high school career, and it's the foundational block that most other math is built on. It'd be worrying if SAT math didn't use a lot of algebra.

Of course, that algebra comes in many shapes and forms. Some of it's relatively basic, while other questions involve so many steps that little slip-ups become a serious threat. One way to make that algebra longer is to include two variables (or more). If you have as many equations as variables, then it's only a matter of using substitution or combination to get your answer.

You've seen at least one of these methods in school, of course, but you may not be equally comfortable with the two. If that's the case, then take some time getting familiar with the other. You'll want to have both options to choose from during your SAT.

When substitution is better

If either x or y (or whatever variable you have) stands alone on one side of the equation or can be isolated really quickly, substitution is the way to go. Take a look at the example below.

If x=(11-y), and y^2=x+$(y-1)^2$, then what is the value of x?

This is also ideal for substitution because of the other somewhat complicated stuff going on… if you used combination, you might make a mistake when combining the y terms of the two equations.

So let's solve it.

First, substitute the x out of the second equation by plugging in the right side of the first equation.

$$y^2 = x + (y-1)^2$$

$$y^2 = (11-y) + (y-1)^2$$

$$y^2 = (11-y) + (y^2 - 2y + 1)$$

$$y^2 = 11 - y + y^2 - 2y + 1$$

$$y^2 = 12 - 3y + y^2$$

$$0 = 12 - 3y$$

$$3y = 12$$

$$y = 4$$

And we're done, right?

Nope. Almost done.

Remember to check what the question is asking for. In this case it's the value of x, not y.But that's not hard. Just plug that value of y back in to the simpler of the two equations we were given.

$$x = 11 - y$$

$$x = 11 - (4)$$

$$x = 7$$

Now it's done.

When combination is better

If there's one variable that has the same coefficient in both equations, then combination is probably a good idea. Or better yet, if the coefficient in one equation is the negative of that in the other equation, then we're set.

What does that mean? Good combination questions look like this:

If $3x - \frac{y}{2} = 19$, *and* $5y - 3x + 1 = 0$, *then what is the value of* x *?*

With that 3x in one equation and -3x in the other equation, it's pretty quick to cancel them out. So let's line up the two equations over each other, and then combine them into one.

$$3x - \frac{y}{2} = 19$$

$$5y - 3x + 1 = 0$$

$$3x - \frac{y}{2} = 19$$

$$-3x + 5y + 1 = 0$$

Add the two equations together, cancelling the 3x and -3x.

$$5y + 1 - \frac{y}{2} = 19$$

$$5y - \frac{y}{2} = 18$$

$$10y - y = 36$$

$$9y = 36$$

$$y = 4$$

If you fell for that trap the first time, I hope you're not going to do it again. Find x.

$$3x - \frac{y}{2} = 19$$

$$3x - \left(\frac{4}{2}\right) = 19$$

$$3x - (2) = 19$$

$$3x = 21$$

$$x = 7$$

And now we're done.

Use whichever method is easier on the day of your SAT

While you're practicing, it's a good idea to try to vary which method you use, so you have both tools at your disposal. But on the day of your test, you don't want to spend any time deliberating. Just pick whichever seems easiest and go for it.

SAT Shortcut: Avoid Algebra by Drawing Word Problems

It's pretty often on the SAT that you'll have the choice of doing something algebraically or by some other route. While you might be pretty comfortable working with equations, it's often not so easy to figure out how translate the words on the page into a workable algebra problem. And you might not even have to; sometimes, just figuring out the logic behind a problem is all you need to do. And the best way to do that is to start sketching the situation out.

Why creating equations can be difficult

> *Carrie invites some friends to a party. For every two friends who bring snacks, there are five who bring nothing with them. If the number of friends who bring nothing is 15 more than the number of friends who contribute snacks, how many friends in total arrive at the party?*

We're missing a couple pieces of information in this question. We don't know the total number of friends who bring Hot Cheetos and Takis, nor do we know how many of her friends are total bums. (We do know that Carrie needs to find better friends, though).

But let's try writing out an equation, if we can.

We're trying to arrive at the total number of people at the party, which we'll call g (for guests). That's the sum of two numbers that have a difference of 15. Lets call those numbers f (friends with Funyuns) and m (moochers).

$g = f+m$

and

$m-f = 15$

Hm. So far, nothing's jumping out. But we do know something else: there are 2 friends with Funyuns for every 5 moochers. That means that $\frac{2}{7}$ of the guests, g, have Funyuns, f, and $\frac{5}{7}$ of g are moochers, m.

That's $f = 2\frac{g}{7}$

and $m = 5\frac{g}{7}$

And from here, things are relatively simple. Plug those into our equation for the difference of m and f.

$$5\frac{g}{7} - 2\frac{g}{7} = 15$$

$$5g - 2g = 105$$

$$3g = 105$$

$$g - 35$$

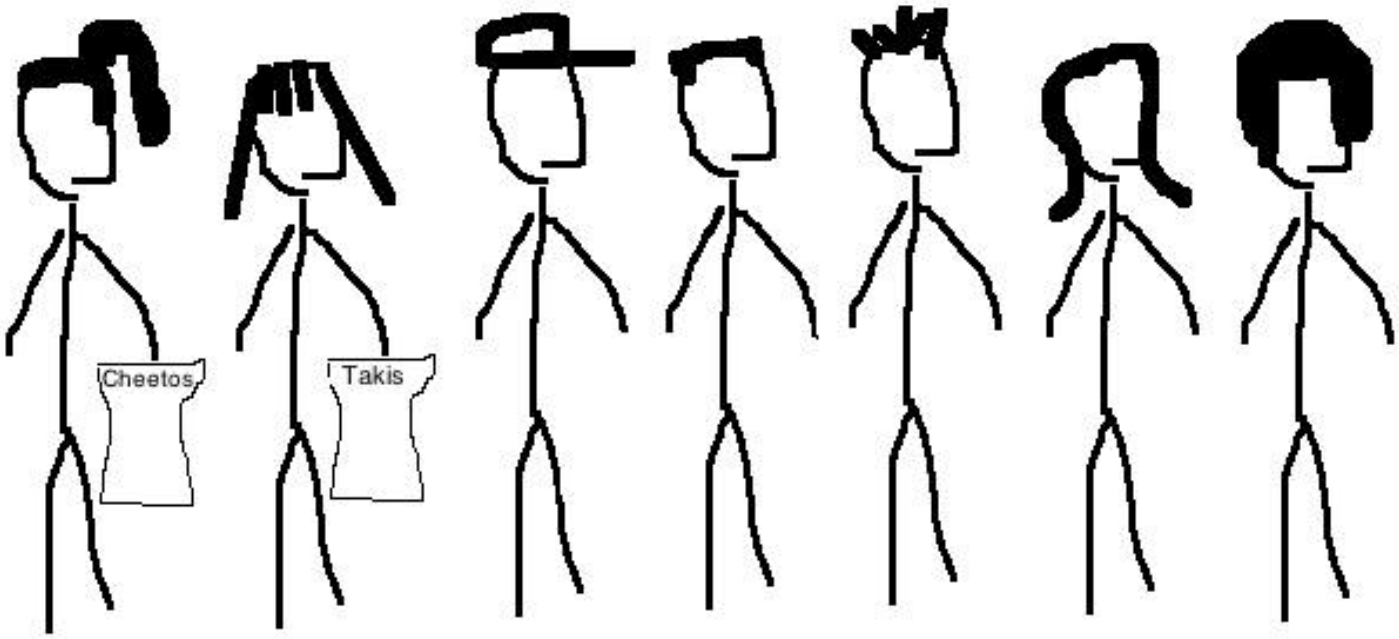
And there's our answer. But…

Drawing the word problem is faster

If the equation above isn't totally clear, don't worry. This problem is about to get easier.

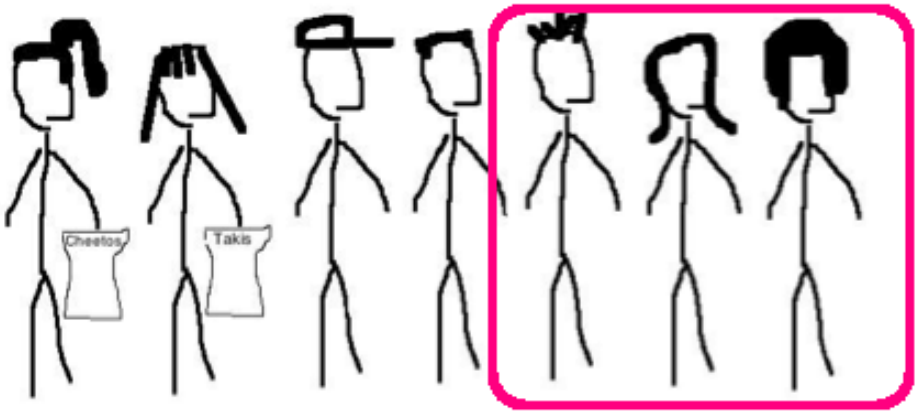
But maybe you got the right answer pretty comfortably with the algebra — and if that's true, then great — but remember that the SAT is timed, which means that the fastest way is the best way.

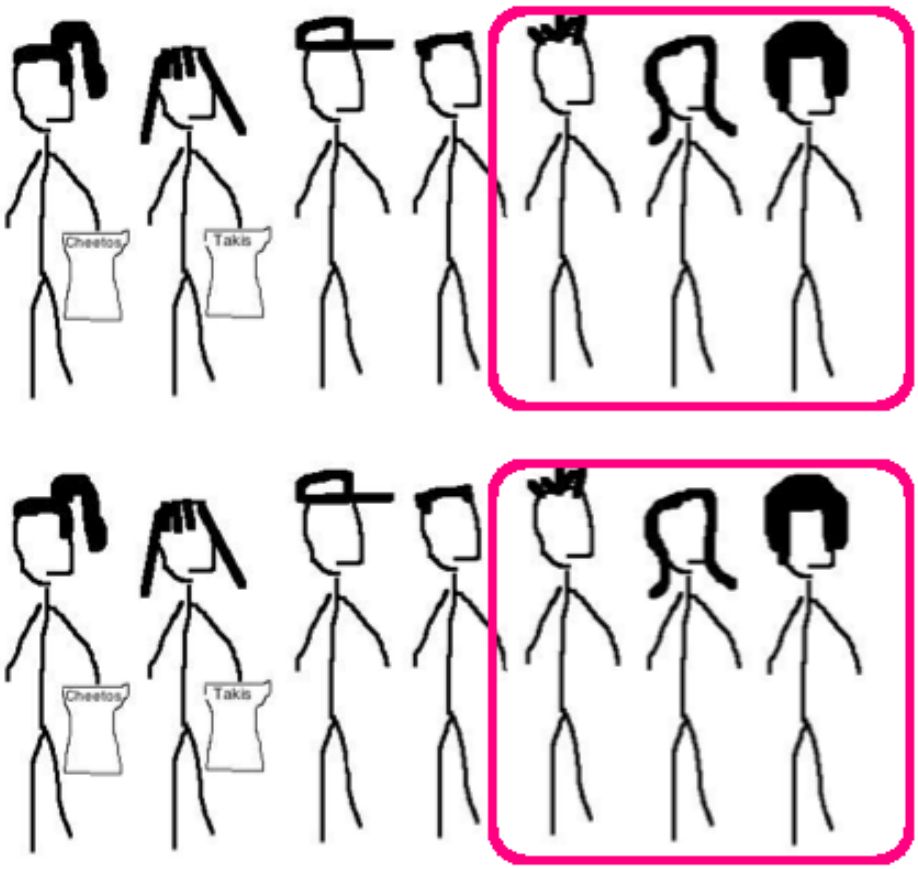
By just drawing some of Carrie's crummy friends, we'll get there faster.



Alright, so on the actual SAT, you won't have the luxury of my Microsoft Paint masterpiece. You'll just draw some circles and squares, or something similar.

It's pretty clear on seeing this that $\frac{2}{7}$ of the friends have snacks and $\frac{5}{7}$ don't. You can also see what the difference is… that's $\frac{3}{7}$. So just do a little mental highlighting and copy/pasting of that picture.





…How many groups of these guys will we need to make the difference be 15? If there are 3 in each group, we'll need 5 groups. Five groups of seven people total? That's… 35 total. Right.

Pictures and diagrams help keep you focused on the SAT

It's a lot easier to stay focused and get your foot in the door of a word problem if you start sketching out the situation like this. Even if you saw the mathematical relationship pretty quickly in this example, there will almost definitely be more difficult problems on the SAT that are best drawn, at least in the beginning. And if the math becomes clear soon after, then great — the picture has served its purpose.

Word Problems

The basics

SAT word problems are notoriously convoluted. Especially during a nearly four-hour test, you can easily become ruffled sorting through all the words, trying to figure out what the question is asking. Below are several vital points you need to remember when dealing with word problems. Additionally, there are also three questions, from medium to challenging, which will apply to the different points.

Strategies for word problems

1. *One piece at a time*

SAT word problems were not written so that they would be easy to understand. Indeed, there is simply too much information for the question to be easy to understand. However, many students try to read the entire problem at once, instead of slowing down to absorb each piece of information. So slow down. And bite off only as much as you can chew.

2. *Always remember the question*

Sometimes it is easy to get lost in all the words. When we finally have figured out what the question is asking, we rush to come up with a solution, forgetting that the problem had thrown in a specific word at the very end ("even", "integer", "positive", "not" are some of the usual suspects). If you find yourself making many careless errors along these lines, make sure to underline the actual question. That way, once you've come up with your answer, you'll be to make sure that the question is actually asking for that.

3. *It's probably not that easy*

If it seems way too easy, it probably is (unless you are on the first few questions). Make sure you've read the question carefully.

4. *It's not about just the formula; it's about thinking*

SAT problems aren't just about plugging numbers into some formula and having the answer appear magically before you. A formula is just one part of the unraveling process. So understand what the question is about, follow the necessary steps, and at the very end–and only then–a formula will be handy.

Point #4 especially applies for the more difficult questions. Also, there are sometimes shortcuts, so you don't have to even use the formula (as you'll see in one of the questions below).

Practice word problems

Below are several questions that will incorporate aspects from the four points above. In doing these problems, you should constantly refer to points #1-4, and see which one(s) are most relevant.

Instead of just calling them 1, 2 and 3, I've labeled them according to where they would probably show up in an SAT math section. That way, if you are dealing with a high-numbered, or difficult question, and it seems easy…well, just keep in mind point 3.

10. Kyle drives 40 miles due north and stops. He then heads due west for 60 miles and stops. Finally, he heads north another 40 miles and stops. How far is he from his starting point?

A. 50 miles
B. 80 miles
C. 92 miles
D. 100 miles
E. 160 miles

13. A bag contains only red, blue, and yellow beads. If half of the beads are red and a third of the remaining marbles are blue, how many beads are yellow if there are a total of 36 beads in the bag?

A. 6
B. 12
C. 15
D. 18
E. 24

17. A book setter wants to print pages from a book. For each number at the top of the page, she has to pay 5 cents. For example, printing page 1 would cost her 5 cents, whereas printing page 100 would cost her 15 cents. If the book setter pays a total of $1.05 for 11 consecutive pages, what is the highest page number the book setter decides to print?

A. 9
B. 11
C. 19
D. 20
E. Cannot be determined by the information provided.

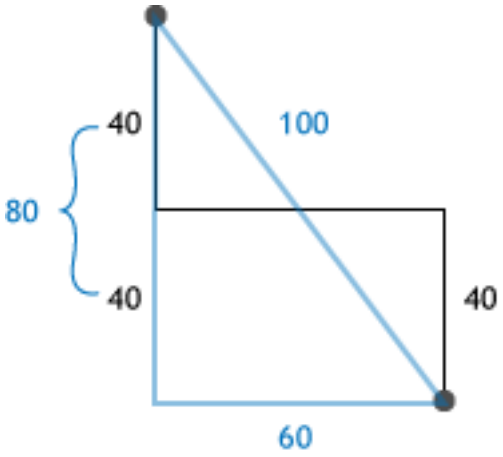
Find the answers on the next page!

Question #10

10. Kyle drives 40 miles due north and stops. He then heads due west for 60 miles and stops. Finally, he heads north another 40 miles and stops. How far is he from his starting point?

A. 50 miles
B. 80 miles
C. 92 miles
D. 100 miles
E. 160 miles

For this one, you want Point #1 to be your guide: bite off one piece of info at a time. First off, draw the picture out by using a straight, vertical line. This line should denote 40 miles north. At the top of the line, next draw a line branching out perpendicularly to the first line (this will be the 60 miles due west line). Finally, draw a vertical line at a right angle to the horizontal line. This line will be the last leg of Kyle's trip.



Now if you found yourself reading and re-reading the question several times, only to give up in frustration, know that is not you or your math aptitude, but your approach (something easily changed!). So, again, start with one piece of info at a time.

Next, we can complete this vertical line so that we end up getting a triangle. And, just like that, we have our 3:4:5 ratio. So, the answer is 100 miles. (D). If you found yourself scrambling to the calculator after wracking your brain for the Pythagorean formula, remember point 4 and shortcuts.

Question #13

13. A bag contains only red, blue, and yellow beads. If half of the beads are red and a third of the remaining marbles are blue, how many beads are yellow if there are a total of 36 beads in the bag?

A. 6
B. 12
C. 15
D. 18
E. 24

The trick to this problem is noticing the wording "remaining" marbles. If you just sped through the question, thinking, heck, that's easy, I'll just add $\frac{1}{3}+\frac{1}{2}=\frac{5}{6}$ and the remaining fraction $\frac{1}{6}$ times 36 will give me 6, answer (A), remember point #3: it's probably not that easy.

See, once you throw the "remaining" $\frac{1}{3}$ in there, it changes how many beads are yellow, and, by extension, how many are blue. So if $\frac{1}{2}$ of the beads are red, of the remaining 18, $\frac{1}{3}$ (or 6) are yellow, then that leaves us with 12 blue beads, or answer (B).

So make sure to slow down and read carefully.

Question #17

17. A book setter wants to print pages from a book. For each number at the top of the page, she has to pay 5 cents. For example, printing page 1 would cost her 5 cents, whereas printing page 100 would cost her 15 cents. If the book setter pays a total of $1.05 for 11 consecutive pages, what is the highest page number the book setter decides to print?

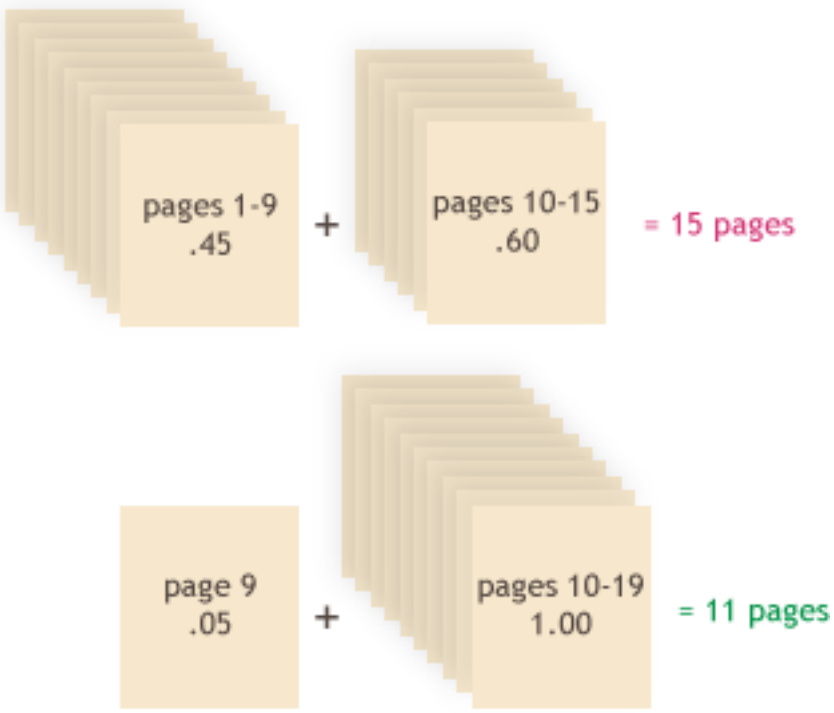
A. 9
B. 11
C. 19
D. 20
E. Cannot be determined by the information provided.

This is the toughest of the questions. Mostly, because both the context (pages and book setters) and what the question is asking seem vague. But read slowly, bite off a piece at a time, and you should be able to get it.

At first, the question may seem unsolvable. For there are a number of different ways in which she could print eleven pages and end up spending $1.05, right? So isn't the answer just (E)? Well, remember point #3. It's probably not going to be that straightforward. There has to be exactly one set up that conforms to 11 pages/$1.05. At this point, you may think, 'Oh, but I need to know some formula for that … and I don't know the formula.'

But remember Point #4: it's not about the formulas. This question tests your raw thinking mechanisms. In others, you have to experiment a little. How many ways can you get 1.05? Well, if you start from page 1 and move up to page 9, you get 45 cents worth. Then you would need 6 more two-digit pages (page 10, page 11, etc.). That would give us 15 pages, which is way over eleven.

We can't use an even number of single-digit pages, or we won't get the .05. Since 15 is way off, it is good to start from the other side of the spectrum. What if we only have one single-digit page, meaning page 9. Well, that costs 5 cents. And that leaves me with 1.00, which corresponds to, at 10 cents a page, the double-digit numbers (10, 11, and so on).



But we are not out of the woods yet. What is the 10th double-digit page? You may be tempted to add 10 + 10 =20, but that answer is wrong. See, the number 10 counts as one of the numbers, and therefore costs 10 cents. You wouldn't say that two pages, including page 10, would give you 10 + 2 = 12. That would be three pages – 10, 11, and 12 – and therefore 30 cents. So, since we are including page 10 in our 10-page count, we just want to add 9 to 10 to give us page 19. Answer (C).

Takeaway

The takeaway from this lesson is to apply the above to questions that are at your difficulty level. If question #17 completely blew your mind, that is fine. You don't have to be able to get the toughest word problems right off the bat. If all three questions were tough, then you can start with word problems under question #10. The key is to improve from your current level.

Simplifying SAT word problems using elimination

Hey, hey, c'mere. I have a secret. Lean in close. I'm going to whisper it in your ear. You see that picture of me looking all contemplative up there on the Who is Magoosh page? Put your ear up against that so I can impart my SAT wisdom.

Okay, so it turns out it's hard to make a .png talk, so never mind that. The secret is this: *the SAT is a multiple-choice test*.

Blown-away, huh. No? Well, if you already know that, have you been using it?

How to make word problems easier to work with

Because the SAT is mostly multiple-choice, you don't really have to understand how to transform word problems into equations for a lot of the questions. You can use the answers to your advantage and totally circumvent it.

You don't know where to start on a question? Did drawing the situation fall flat?

Then take a look at the answer choices. If there are concrete numbers there (and not algebraic expressions), then you should try putting some of them through the process that the word problem describes.

Using a number from the answer choices

Here's a relatively low-level word problem:

> *At 8:00 a.m., there are exactly as many chocolate donuts as there are jelly donuts on a table in the teacher's lounge. Within five minutes, 15 of the chocolate donuts are eaten, but nobody has eaten the jelly donuts. There are then four times as many jelly donuts as there are chocolate donuts on the table. How many jelly donuts are left?*
>
> A. 5
> B. 10
> C. 16
> D. 20
> E. 40

So maybe you're totally fine writing out the equation here. But like a lot of SAT questions, it can be a little hard to picture the math (especially if you're feeling test anxiety).

In that case, you would definitely want to start checking the answers. Sometimes that may be a bit too slow, but most of the time it's actually really fast.

Let me say that a little more clearly. A lot of the time, process of elimination is faster than straightforward math.

So where should you start? How about with (C). After all, Neither (A) nor (B) is divisible by four, which the answer probably will be, since the number of jelly donuts is four times that of the chocolate. And (A) is definitely too small.

In (C), there are 16 jelly donuts left, which means there must be 4 chocolate. If there are 4 chocolate donuts after the five minutes are up, there must have been 19 at the start. 19 chocolate and 16 jelly don't match up, so that's no good.

Let's try (D), then, so we'll have more jelly donuts. 20 jelly means 5 chocolate left. 5 chocolate remaining means 20 chocolate at the start. 20 and 20 match up.

And we're done. Doing that in your head is even faster.

Practicing important math strategies like this

You should be using answer choices to your advantage as often as you can when you first start your SAT prep. You want to learn how the strategy works, when it works, and when it's not applicable (because sometimes it isn't). The best way to learn that is by experience.

Need practice problems? Magoosh has hundreds of them waiting for you.

Averages in SAT word problems

In math class, you probably learned a formula to find the average of a series of numbers. You still have to know that formula, but instead of applying it robotically to a bunch of similar questions, you have to first figure out how to crack the problem. That is, you are not going have all the numbers neatly arranged waiting for you to plug them into the equation that will cough up the answer.

Below are a couple of averages practice problems. Note how they are all word problems – this is how almost all of the average problems will be on the SAT. And by the way, in some cases (though not in all!) you will need the formula: Average = Total/Number of Elements.

1. Mike scored 78, 77, and 82 on his first three algebra tests. If he wants to average 80, what is the least he can score on his fourth test?

A. 80
B. 83
C. 84
D. 89
E. 90

Find the solution on the next page. No peeking!

Solution to #1:
This is the SAT! Don't take the long road – find the quick solution, and eliminate wrong answer choices when possible.

So instead of plugging these numbers into the formula (yeah, you can tell by now that I'm not a fan of the formula!), let's find a short cut. Notice that Mike has scored 78 (which is 2 less 80), 77 (which is 3 less than 80) and 82 (which is 2 more than 80).

Let's put this information together: -2 -3 + 2 = -3. So we are 3 lower than 80. To balance things out – remember we are looking for an average of 80 – the next test score has to be three more than 80: 83. (B).

Let's not forget smart elimination: 80 – too low. 89, 90 too high. Even if you have no idea where to go from there you still have a 50/50 chance.

Let's try another:

2. w, x, y, and z are distinct positive integers. If w + x + y + z = 100, what is the greatest possible value of w?

A. 13
B. 25
C. 26
D. 94
E. 97

Turn the page to find the solution!

Solution to #2:
If you follow the formula and reason that the average is 25 (100/4 = 25), then you will fall for the SAT's trap. *25 is not the answer*.

Think of it this way: none of the integers can equal 100, because then the other three integers would have to all be zero (which they can't be because they are distinct positive integers). Since we want to know the greatest possible value of w, let's start high and work our way down.

Can w = 99? Nope. 98? Nope. Using logic, we can see that if w is a big number, that's close to 100, then the other integers have to be small numbers. What are the smallest numbers they can be and still be distinct, positive integers? 1, 2, and 3. If x = 1, y = 2, and z = 3, what is w? It has to be 94.

Let's check that that works:

- Are 1, 2, 3, and 94 distinct integers? *Yes. They're all different*.
- Are they positive integers? *Yes*.
- Do they add up to 100? *1+2+3+94=100. Yes!*
- The answer is D.

Plugging In and Ball-parking

The basics of plugging in

All too often, I find students reluctant to pick numbers when trying to solve a problem. Some balk saying, "Doesn't that take too much time?" Others exclaim, "Are you allowed to do that?"

So the bottom-line: if you want to be successful on the SAT math section, plug in whenever you can. And if you are unsure whether a problem lends itself to plugging in, plug in! Don't hold back and dilly-dally, unsure how to approach a problem. That wastes time.

For instance, a great problem type to plug in involves variables and inequality signs, arranged with Roman Numerals. The words MUST BE TRUE or COULD BE TRUE accompany the problem. Let's have a look:

1. If a > b > c, and a, b, and c are integers, which of the following MUST be true.

I. a + b > b + c

II. a^2 < b^2

III. (a - b)(b - c) is even.

A. I only
B. III only
C. I and II
D. II and III
E. All of the above

Find the solution on the next page!

Explanation:
For (I) if we plug-in any numbers, this equation will always hold true. Note we can drop b from both sides of the equation. If you are unsure, plug in numbers. (I) MUST always be true.

For II, your initial hunch is that this condition MUST be true. However, do not simply rely on your first instinct (it may be wrong). Plug in and test using numbers. Remember, 'MUST be true' means that the condition must hold in every case. If you find that one exception, then the condition must not always be true. If you plug-in a negative number for b that has an absolute value that is greater than a, then you have found a case where (II) doesn't hold true. For instance, plug in -2 for b, and -1 for a. And we have a case where b is greater than a.

For (III), plug in a = 3, b = 1, c = 0. Just like that we've found a case where (III) is odd.

Therefore the answer is (A) I only.

More practice
This question can be solved by a formula. Of course you have to know how to set up the formula (it's 60 = 7/10 x). Yes, I already can sense some of you cringing. But that's the beauty of the SAT – you don't need no stinking formulas!

Think of it this way – you already have the answer. It's one of the five below the question. If you've ballparked, you can get the number of possible answer down to two. Let's take a look again at Mike and his shirt.

> *Mike saved 20% on a shirt before taxes. If he paid $60 for the shirt, what was the original price of the shirt?*
>
> A. 48
> B. 64.60
> C. 75
> D. 80
> E. 95

One of these is the answer. Which one? Let's choose (C) and plug it back into the problem. If the shirt was originally 75 dollars, and he saved 20%, let's take 20% of 75. You can use your calculator, or you can use the shortcut.

What's 10% of 75? 7.50. 20% is twice 10%. So twice 7.50 is 15. So what's 15 dollars less than 75? 60. The answer.

If we do the same with answer (D), we get 20% off 80, which is 80 – 16 = 64. Mike did not pay 64 for the shirt so we know this is not the answer.

And just like that – no boring formulas – we were able to get the answer. See, I told you – SAT math can be fun. Just don't carried away and start scribbling numbers on your bedroom wall!

Takeaway

When dealing with variables presented in three Roman Numerals, plug in. It will make the question much less abstract and help you quickly hone in on the right answer.

The basics of ballparking

If you are thinking of greasy hotdogs and the seventh-inning stretch, you are in the wrong ballpark. In the SAT world ballpark means 'guestimating' and is a quick trick to get a solution.

For instance, take a look at the following question (it's the same one we used earlier):

> *Mike saved 20% on a shirt before taxes. If he paid $60 for the shirt, what was the original price of the shirt?*
>
> A. 48
> B. 64.60
> C. 75
> D. 80
> E. 95

We know that Mike paid $60 for the shirt after the 20% discount. On what planet would the shirt have cost less before the discount? Obviously not Earth – so we can get rid of (A). (B) is also suspect because it is so close to $60. A 20% is pretty decent drop in price.

On the upper range, $95 is way too much. For if Mike is saving $35 on a shirt that costs less than a $100, he is obviously saving way more than 20%.

That leaves us with either (C) or (D). Ballparking won't always help you get the answer, but it is a very effective way of eliminating most of the answers.

To figure out whether it is (C) or (D), use the trick we just learned: plugging in.

Probability

Probability is actually pretty rare on the SAT. So don't freak out about this topic. In fact, I'd only recommend this post for those looking for a near perfect score — those who want to make sure they have all their bases covered.

What you'll have to know is the following:

Probability (likelihood of something happening) = # of desired outcomes /# of possible outcomes

Let's say we want to know what is the probability of rolling "snake eyes", or two '1''s, on a pair of fair dice. Well, how many ways can you roll two '1's? There is only one way. So for a desired outcome — the quantity in the numerator — we are going to write '1'.

Now, how many different ways can you roll two six-sided dice? (For a review of the Fundamental Counting Principle, check out the next section). Well, there are six possibilities on each die, so that gives us 6 x 6 = 36.

Therefore, the probability of rolling "snake eyes" with two dice is 1/36.

Of course things do get a little more complicated with probability — that's why so many people dread it. Below are some medium to medium-difficult level questions for you to sink your teeth into. If you nail all three, the probability of you struggling with a probability question on the test is very low.

If not, make sure you understand the concepts (see explanations below), and you should do just fine on the probability questions the SAT throws at you.

Practice problems:

1. A basket contains a total of 24 balls of yarn. $\frac{1}{3}$ are white, $\frac{1}{4}$ are red, $\frac{1}{6}$ are blue, and the rest are black. What is the probability, if you reach into the basket, of pulling out either a red or a black yarn?

A. $\frac{1}{4}$
B. $\frac{1}{3}$
C. $\frac{1}{2}$
D. $\frac{7}{12}$
E. $\frac{5}{6}$

2. A six-sided die is thrown three times. What is the probability that on all three rolls a prime number will never come up?

A. $\frac{1}{2}$
B. $\frac{1}{6}$
C. $\frac{1}{8}$
D. $\frac{1}{64}$
E. $\frac{3}{216}$

3. A coin is tossed three times. What is the probability that three "tails" in a row will not show up?

A. $\frac{1}{8}$
B. $\frac{3}{16}$
C. $\frac{1}{2}$
D. $\frac{5}{8}$
E. $\frac{7}{8}$

Turn the page to find the solutions!

Explanations:

1. Hey, a little fun with fractions never hurt! So, if we do the math, we get 8 white, 6 red, and 4 blue. That means the remaining 6 are black. Since the question asks for red AND black, that gives us 12 (desired outcomes) out of 24 (total outcomes), or $\frac{1}{2}$.

2. First off, there are three prime numbers on a six-sided die: 2, 3, and 5. What is the probability of NOT rolling one of these three numbers? 1/2, since rolling a 1, 4, or 6 would count. Now, the probability of rolling an outcome of $\frac{1}{2}$ (or 50%) is much like tossing a coin. In this case, we are tossing the coin, or rolling a die with a '1', '4' or '6', three times: $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = \frac{1}{8}$. Answer: (C).

3. Speaking of coins! A quick way of doing this problem is subtracting the probability of getting all tails by the total probability. Before we do that, one quick thing about the probability space. Usually, we talk about something definitely happening as having a probability of 100%. However, 1 also represents a 100%. How? Well, if the probability of something happening is $\frac{1}{2}$ or 50%, what happens when you multiply both those numbers by 2? You get '1' and 100%. So probability can be defined along a scale from '0' to '1'. So for the coin toss, '1' represents all possible outcomes. Subtracting the probability of all tails from '1' will give us the probability of NOT getting on tails: $1 - \left(\frac{1}{2}\right)^3 = 1 - \frac{1}{8} = \frac{7}{8}$. (E).

Fundamental Counting Principle

Knowing this rule – or principle as it is called – will make certain questions on the SAT much, much easier. Before I tell you the rule though, let's take a look at the following scenario.

Jane has white socks, red socks, and black socks (she must be a baseball fan!). Additionally, she has four different shoes: tennis, basketball, casual, and golf shoes. If she can wear any pair of socks with any pair of shoes, how many different ways can she dress?

The big question here is whether you should you add the number of shoes and socks or multiply them. One good way to answer this is by doing a little thought experiment (something you can repeat if the solution slips your mind).

Let's say Jane has got her white socks on. How many different shoe choices that she have? Four, since there are that many pairs of shoes. Now, how many different shoes can she choose from if she has red socks on? The answer, again, is four. At this point, she is already at 8 different shoe-sock getups. So you know that when you are seeing how many ways you can combine two different sets of things, always multiply. Another way of looking at it is for each pair of socks (there are 3 total), Jane has four choices: 3 x 4 = 12.

And that brings us to the Fundamental Counting Principle:

If option #1 has P alternatives and option #2 has Q alternatives (assuming that the two sets of alternatives have no overlap), then total number of different pairs we can form is P*Q.

I know that sounds scary. So don't labor to wrap your head around it – just remember the logic from Jane and her socks.

Let's try some practice problems on the next page.

Easy Practice

Hailey, a dog-walker, has to look after three poodles and two dachshunds. There is one bowl for the poodles, since they are quite picky when it comes to cleanliness, and another for the dachshunds, who aren't nearly as finicky. If a feeding consists of one dachshund and one poodle eating at the same time, how many different ways can Hailey pair off the dogs for feedings?

A. 3
B. 5
C. 6
D. 9
E. 12

Medium Practice

A youth symphony orchestra is to consist of five violinists, three clarinetists, and two bassoonists. The conductor wants to put together a trio of each instrumentalist. How many different possible trios are there?

A. 5
B. 8
C. 15
D. 24
E. 30

Challenging Practice

A rectangle is broken up into 4 squares. A modern artist can use any of 6 colors to paint the four squares. If no square can be the same color as an adjacent square, and the extreme left square and the extreme right squares are the same colors, how many unique ways can the artist paint the square?

A. 120
B. 150
C. 360
D. 750
E. 900

Flip the page to see all three answers and explanations!

Explanations:

1. There is a lot of verbiage in this problem. All the question is really asking is how many ways can you pair two dachshunds with three poodles: 2 x 3 = 6. (C).

2. We are seeing how many ways we can combine three different sets, so we just multiply the three groups together: 2 x 3 x 5 = 30. Answer (D).

3. Tricky question. The first square can be painted any color. The square next to it can be painted any color, except for the color of the first square. So we have 5 choices for the second square. For the third square, it can be any color (even the same color as the first square), except for the color of the second square. So we also have 5 options for the third square.

   And for the last square? Well, the twist is that it must be the same color as the first square, so we actually don't have a choice. In the end, we are left with 6 possibilities for the first square, 5 for the second square, and 5 for the third square: 6 x 5 x 5 = 150. Answer (B).

Combinations

Like permutations, combinations unnecessarily frighten students. There are so few combination questions on the SAT that a student may have to take the SAT for an *entire year* before seeing one of these question types (the SAT is administered eight times a year).

Why then even talk about combinations? I just told you, basically, don't sweat it. But if you want to make sure you have all your math bases covered, then read on.

"C"ombinations are about "C"hoosing

The 'C' in combinations equals 'c'hoosing. A silly mnemonic perhaps, but one that will hopefully help you tell the difference between permutations and combinations.

> *Mark has a brown, white, blue, red, and black T-shirt. If he wants to pack two T-shirts for a weekend trip, then how many different T-shirts can he take with him?*

Notice that, unlike a permutation question, Mark is not arranging his shirts in an order. He is choosing two to take with him. We do not care whether his red T-shirt is packed on top of his white T-shirt. This ordering (or arrangement) is key to a permutation problem, but does not relate to a combination problem.

So now that we know we are dealing with a combination problem (after all this is a combination post), we need to use the following formula:

$$\frac{(Total\ number\ of\ things)!}{(Number\ of\ things\ chosen)! \times (Number\ of\ things\ not\ chosen)!}$$

$$\frac{5!}{2! \times 3!} = \frac{5 \times 4 \times 3 \times 2 \times 1}{(2 \times 1) \times (3 \times 2 \times 1)}$$

Notice how we can easily cancel out the 3 x 2 x 1 from both the numerator and the denominator. This leaves us with 5 x 4/2 = 10. Therefore, Mark can take a total of 10 shirts.

Don't fret combinations. They are very likely to show up on the test, and when they do, they are no more difficult than the question above.

Permutations

The name alone conjures up something arcane and impenetrable (two good SAT vocab words!). Once students learn the concept, it only intensifies their fears. Having said all that about how scary permutations are, I can tell you that, by keeping your cool, you will be able to handle this tough concept *and* show the SAT who is boss.

Number one thing you have to know: Arrangement = Permutation

If I were the god of math and could decree the way things should be, I would call permutations arrangements. Of course that is because I would be a nice math god, and would want to make math seem as easy possible. It is not that mathematicians are evil math gods, their wrath raining down upon us in the form of tongue-twisting concepts. Simply put, every field has its jargon (good SAT word!) and if you want to learn that field you have to know the lingo.

Anyhow, I'm here to make things easier.

Rule #1: Whenever you are dealing with the total number of ways things can be arranged, use permutations.

If you have five students sitting in a row and want to see how many ways there are to arrange them, use permutations. With this example, all you would have to do is take the number of things being arranged (five students), and put a (!) next to it. This sign is called a factorial and means the following:

5! = 5 x 4 x 3 x 2 x 1 = 120.

An easy way to think of how to deal with factorials is what I call the Space Shuttle Countdown: Whatever number you are 'factorial-ing,' countdown a number at a time — as though you are the guy announcing the takeoff of the space shuttle. So 10! = 10 x 9 x 8 x 7 x 6 x 5 x 4 x 3 x 2 x 1 = Takeoff! Well, actually a very large product.

The good news is the factorials on the SAT usually won't be over 5!.

Whenever you are asked the find the total number of ways you can arrange something, use permutations (and don't forget the factorial!).

Statistics

Types of averages

There are three basic types of averages on the SAT that you should be pretty comfortable with at this point, and all of them start with the letter "m." Those are the mean, the median, and the mode. In case those aren't second nature, let's define them, quickly.

Mean

This is the most commonly used type of average and the most commonly tested on the SAT. The formula is simple enough.

$$\frac{a+b+c+\cdots}{n}$$

Where n is the number of terms added in the numerator. In the set of numbers {2,3,4,5}, 3.5 would be the mean, because 2 + 3 + 4 + 5 = 14, and 14 ÷ 4 = 3.5

Median

If the numbers in a set are listed in order, the median is the middle number. In the set {1,5,130}, 5 is the median. In the set above, {2,3,4,5}, the median is 3.5, which is the mean of the middle two terms since there's an odd number of them.

Mode

The mode is just the number that shows up the most often. It's perfectly possible that there is no mode or that there are several modes. In the set {5,7,7,9,18,18}, both 7 and 18 are modes.

What's important to know about averages on the SAT

Averages come up in an algebra or word problems. You'll usually have to find some value using the formula for a mean, but it may not be as simple as finding the average of a few numbers. Instead, you'll have to plug some numbers into the formula and then use a bit of algebra or logic to get at what's missing.

For example, you might see a question like this:

> *If the arithmetic mean of x, 2x, and 7x is 127, what is the value of x?*

To solve the question, you'll need to plug it all in to the formula and then do some variable manipulation.

$$\frac{x + 2x + 7x}{3} = 126$$

$$x + 2x + 7x = 378$$

$$x = 42$$

Medians and modes, on the other hand, don't show up all that often. Definitely be sure that you can remember which is which, but expect questions on means most of the time.

One more averages practice problem

If three sisters have an average (arithmetic mean) age of 24, and the youngest sister is 16, what is the sum of the ages of the two older sisters?

A. 28
B. 32
C. 56
D. 60
E. 72

If you're careful to remember that the question is asking you for the sum of the sisters' ages, you can solve this one pretty quickly. Keep in mind that we can't find their individual ages, though. There's not enough information for that. First we find the total combined age of the three, which must be 72, since 24*3=72. Careful not to fall for the trap that is (E)! We must take the last step and subtract 16 from that total age to find the leftover sum, which is 56, or (C).

Weighted averages

The phrase "weighted average" may be a little scary sounding, but it's nothing to get freaked out over. Usually weighted averages on the SAT will use the basic formula for finding the mean. It's pretty much the same skill.

What is a "weighted average"?

Basically, weighted means uneven; the numbers that you're looking at don't carry the same importance. For example, if I'm trying to find the average number of fleas that my pets have, and each cat has 150 while each dog has 200, then those two numbers have equal "weight" only if I have the same number of cats as dogs. Let's say I have 1 of each.

$$\frac{150 + 200}{2} = 175$$

That's just a normal mean, so that's no problem. Well, the fleas are a problem, I guess. And the fact that I'm counting fleas might have my family a little worried … anyway, the math is easy. But that's a non-weighted average.

For a weighted average, I would have a different number of cats than dogs. Let's say I had 3 cats and 2 dogs. (And they all have fleas … things are starting to get kinda gross. Sorry.)

In order to give them the appropriate weight, we'd have to multiply each piece appropriately and change the total (denominator) to reflect it.

$$\frac{3(150) + 2(200)}{5} = 170$$

But if you expand that, you'll see that it's the same as the standard mean formula.

$$\frac{150 + 150 + 150 + 200 + 200}{5} = 170$$

Just make sure you divide by five (because I have five pets) not two (for two types of pets).

Finding average rates

Average rates are a type of weighted average. Your SAT will include a problem or two about these, and you need to be sure not to fall for the common trap.

> *Maria's drive to the supermarket takes her 20 minutes, during which she averages a speed of 21 miles per hour. She takes the same route home, but it only takes 15 minutes to cover the equal distance. What was Maria's average speed while driving?*
>
> A. 15.5 mph
> B. 21 mph
> C. 24 mph
> D. 24.5 mph
> E. 28 mph

This is a tricky, multi-step problem, and you can't plug in the answer choices to solve it, sadly.

Let's first find all of our information, because the question has only given you part of it. You need to know the formula:

$$r = \frac{d}{t} \quad AKA \ (rate = \frac{distance}{time})$$

This formula can also be expressed as $d = rt$ (easily remembered as the "dirt" formula). We're going to use it both ways.

Using that formula, let's look at the first leg of her trip. She travelled for $\frac{1}{3}$ of an hour at 21 mph, so she must have travelled 7 miles.

That's $21 \times 0.333 = 7$

Using that info, we can figure out the rate of her trip back home. Going 7 miles in $\frac{1}{4}$ of an hour on the way home, she went an average of 28 mph.

That's $\frac{7}{0.25} = 28$

So now we need to find the total average. That's not the average of the two numbers we have! Because each mile she travelled on the way there took more time than each mile on the way home, they have different weights!

✗ $\frac{21+28}{2} = 24.5$

Instead, you need to take the total of each piece—total time and total distance—to find the total, average rate.

✓ $\frac{14 \ miles}{0.333 \ hours + 0.25 \ hours} = \frac{14 \ miles}{0.5833 \ hours} = 24 \ mph$

Weighted averages that you won't see on your SAT

I've never seen an SAT question that asks you to find an average based on percent weights (e.g. finding a final grade in a class where quizzes count for 70%, attendance for 20%, and participation for 10%). Finding that average is a little more complicated, so it's nice that we don't have to worry about it.

Simply put

If you're finding the average of two sets of information that already are averages in their own right, like the number of fleas per cat and the number fleas per dog, you can't just take the mean of those averages. You have to find the totals and then plug them into the formula. You should be excited for these kinds of problems, if for nothing more than having the opportunity to bust out your handy-dandy, brand-spankin' new SAT calculator.

Functions

You're going to find about 2-6 function questions on your SAT, and if you haven't been working with them recently in math class, they might throw you for a loop. Just to be clear, we're talking about equations that look a bit like this:

$$g(x) = \frac{x-4}{2}$$

And that format might bring to mind a couple of things. You might be getting ready to graph it out off the bat, which is great, but not necessarily what you'll need to do on the SAT. Or, if you're not so familiar with the type of equation, you might make a lethal error and assume the g here is a variable. It's not, by any means, but…

These functions aren't always a separate skill. They're just wearing costumes.

Some good news: the majority of SAT function questions are actually designed to test the same skills as non-function equation questions. The biggest difference is that they come later on in the section, being categorized as harder, which is great; that's a medium to high-difficulty question that's solvable in low-difficulty time.

Let's take a look at an example of a relatively simple function question.

If $(x) = \frac{x-4}{2}$, *and* $g(a) = \frac{a}{3}$, *what is the value of* a *?*

$g(x)$ is basically just another variable, here. Let's replace it with a y. As an equation question, it would look like this:

If $= \frac{x-4}{2}$, *at what value of x does* $y = \frac{x}{3}$ *?*

The algebra from here on will bring you to the same result for either question (because they're the same question!).

That g is just shorthand

Let's say you have a neurotic friend. Most of us have one or two … but let's go even more neurotic than whomever you have in mind. More toward obsessive-compulsive. Let's call her Gina.

Gina brings grapes to school every day, but she has a really bizarre habit: she eats four, splits the rest into two equal piles, then throws away one of piles and gives away what's left. The thing is that she brings a different number of grapes every day. What she gives away at the end, then, also varies. You might recognize this process from above … it's just an example of that earlier function $g(x)$.

x is how many grapes Gina comes to school with. Everything done to x (on the right side of the equation) just details her bizarre habit. What she has left at the end — what she gives away — is $g(x)$ or -y, depending on the equation.

What that g really means is to follow Gina's process with the number x. She brings x grapes, and she then "g"s the grapes. In a way, it's a verb, not a noun. It indicates the process, not the piece, without writing out each step of the way.

Functions inside functions?

So let's say you've got a whole group of neurotic friends. Gina does her grape ritual and then hands off what's left to Hailey. Hailey gets a bit weird, too, and goes through a whole other process. She won't eat them unless she gets the same amount of grapes from somebody else, and she then squashes one of them under her foot. So Hailey's equation would be $h(x) = 2x - 1$. What she has, then, is described by $h(x)$. But first we need to think about how many Gina gave away.

So let's put the two processes together into one: $h(g(x))$. Take it from the inside out, and you'll have no problem. Gina brought 20 grapes? First find how many she'll end up giving away with her function, g(x), then put it through the process that Hailey uses, $h(g(x))$, to find out how many end up going down her gullet (it would be 15). More friends with more weirdo habits? Just keep nesting the function, e.g. $f(h(g(x))$.

In the end, SAT functions like this will end up being no different than the simpler-seeming SAT equations.

Percentages

Percentages can be surprisingly complicated on the SAT. Part of that is because we can't always translate them into fractions, which are easier to work with algebraically. While it's easy enough to think of 50% as $\frac{1}{2}$, it's rarely so easy to make the conversion on the SAT, especially when the percentages given are, say, 35% or 15%.

To make matters worse, the SAT won't just test you on the simple process of finding the percentage of a number (like calculating a tip). Instead, it'll ask you to calculate in reverse (finding the whole from the part), find a combination of percentages, find a percent change, or give some other scenario-specific piece of information.

The percentage formula

Finding a percent is pretty easy, as long as you have a calculator. Just divide the part by the whole and multiply the decimal that comes out by 100. So if you ate 10 out of a serving of 12 buffalo wings, then you ate $\frac{10}{12} \times 100 = 83.33\%$. Remembering that formula can save you some grief when you have to use it algebraically.

> *Matt and two of his cousins ordered a plate of 24 buffalo wings at a restaurant. Matt ate x wings, while his cousin Laura ate half as many. If Matt's cousin Alli ate four times as many wings as Laura, and the three together finished 87.5% of the wings, how many buffalo wings did Laura eat?*
>
> A. 3
> B. 6
> C. 12
> D. 18
> E. 21

The first thing to do here is change that word problem into an algebraic expression.

$$\frac{x + 0.5x + 2x}{24} \times 100 = 87.5$$

But let's make sure that equation is clear. On the left, we have the fraction of wings eaten. $x + 0.5x + 2x$ represents the number that Matt and his cousins went through. x is Matt's share, $0.5x$ (equal to half) is Laura's share, and $2x$ is what wing-lover Alli picked clean (since $0.5x \times 4 = 2x$). Divide that by the total number, and multiply by 100, and we've followed the percentage formula.

Then, it's just a matter of isolating x.

$$\frac{x + 0.5x + 2x}{24} = 0.875$$

$$x + 0.5x + 2x = 21$$

$$3.5x = 21$$

$$x = 6$$

And you can be sure that 6 is going to show up in our answer choices.

BUT take a look at our question one more time. What's the number we're looking for? That's exactly the kind of trap the SAT might set up for you.

The number of wings that Laura ate is half of x, which would be 3.

Avoiding the formula

It's perfectly possible to avoid having to use the formula on a lot of SAT percentage questions — you can do that by plugging in some values.

And if the answer choices don't have number values that you can test out? Check out this problem:

> *A pair of shoes went on sale for a 40% discount. Then, in a clearance event, the reduced price was lowered once again by 25%. If the original price was x dollars, what was the final price in terms of x?*

A. $\frac{3x}{10}$
B. $\frac{9x}{20}$
C. $\frac{x}{2}$
D. $\frac{11x}{20}$
E. $\frac{7x}{10}$

You can still plug in, but you'll have to choose your own number to use for x. In this case, you want something that's easy to take 40% of. What's the easiest number to get a percentage of?

Try out either 10 or 100; I prefer the second. And 40% of 100 is 40, so after the first sale, the shoes were 60 bucks. Then, after 25% was taken off of that, they were 45 dollars. If you plug in $x = 100$ to all of the answer choices, only one of them comes out to 45, and that's answer choice (C).

While it's good to know the percentages formula, remember that you don't usually need formulas on SAT math that aren't given to you in the beginning of the section.

Sequences

You'll probably get one or two questions about sequences on your SAT. Since they're not a really big deal, don't start your SAT studies here. Instead, spend some time on the bigger issues, like SAT geometry and SAT graphs. But if you've already mastered those, then it certainly doesn't hurt to dig into the smaller details.

Before getting into the SAT's dirty tricks, we'll review the two basic types of sequences.

Arithmetic sequences

An arithmetic sequence increases by addition. It might look like this:

$$1, 3, 5, 7, \ldots$$

If a is the first term, (1 in the example), and r is the change (2 in the example), an arithmetic sequence just adds one more r for each term of the sequence.

$$a, a + r, a + 2r, a + 3r, \ldots$$

The formula for any one term in an arithmetic sequence is:

$$an = a + r(n - 1)$$

But don't just memorize that formula. Look back at that sequence of odd numbers and ask yourself why the formula is true. You'll be much better off on your SAT if you can understand how systems work. You want to be able to come up with the formula yourself without knowing it by heart.

Geometric sequences

Geometric sequences increase by multiplication. For example:

$$3, 6, 12, 24, \ldots$$

Each number is the previous term multiplied by some constant. In this case, a (the first term) is 3, and r (the change) is 2. Since you're multiplying that r again with each term of the sequence, the change is exponential.

$$a, ar, ar2, ar3, \ldots$$

Again, look closely at how that example sequence represents the pattern. You should be able to create the formula yourself after spending enough time looking at the variables and the example.

Even though the SAT doesn't require the formula to find the value of a term, just incase you're curious:

$$an = ar(n-1)$$

How the SAT uses sequences: easier questions

If you get a sequence question early in a math section of your SAT — where the easy questions are — it'll probably just be about finding some the value of a term in the first few numbers of a sequence. You might see something like this:

$$1, 3, 9, x, 81, \ldots$$

1. In the sequence above, what is the value of x?

A little later on in a section, they might just throw in some simple twist

$$x, 3, 9, y, 81, \ldots$$

2. In the sequence above, what is the value of y-x?

If you don't know whether a sequence is geometric or arithmetic, you need three terms to decide. Without that 81 above, this could easily have been an arithmetic sequence where $x = -3$ and $y = 15$.

Harder SAT sequences

Of course, the SAT likes to test your puzzle-solving abilities, so you might get a whole other kind of sequence with its own made up rules. In that case, those formulas won't really help. Or, similarly, you might be asked how many numbers in a sequence share some property.

If you're not sure what to do, it's a good idea write out a few terms (or a few more terms) of a sequence and look for patterns.

As a matter of fact, that's a good idea when you're stuck on any SAT math problem. Map out the situation and look for a pattern.

Strange Symbols

Just to make sure that everybody knows the College Board is sneaky, they insist on putting weird, non-mathematical symbols into SAT math sections. Of course, they maintain that this is all in the spirit of testing your school studies (it's not really, and that's probably why they're planning on changing the test in 2016).

What do you mean you don't understand what the little picture of the potato is for? You didn't learn that in algebra? (You sure didn't.)

The big problem is that a lot of test-takers look at symbols like that — more often a heart or an arrow, really — and think that there's some established mathematical meaning to it. It's tempting to imagine some advanced calculus you're just not privy too and assume the question is there for the really high-scorers.

But that's not it. The SAT is just up to its typical shenanigans.

When the symbol is a variable

The easiest symbols questions actually just use the shapes in place of variables. You might see something like this:

$$-42 + \square \times 6\frac{6}{3} = \sqrt{28}$$

If that's the case, just exchange x for the star symbol and carry on as normal.

It might get a little more complicated, though.

When the symbol is a process

In this case, the symbol is really a lot like a function. It's just shorthand for some process. You need to get rid of that shape, and in order to do that, you need to set up an equation in the pattern that the SAT uses to define that shape.

For example:

For all positive integers y, let ✪y be defined as $\frac{y^3}{2}$. What is the value of (✪2)^2 ?

In that case, just put in 2 for y using the same pattern, careful to remember to include the exponent around the whole thing.

$$\left(\frac{2^3}{2}\right)^2$$

Then, follow the rules to combine exponents and it's done.

Short and sweet

Even the most difficult symbol problems usually boil down to replacing information. Doesn't matter what the symbol is — just plug in whatever other numbers or variables the question gives you to make it a more mundane looking math question, and you'll be just fine.

Grid-In Questions

If you'd never taken the SAT before and hadn't practiced for it, you'd have a choice on your SAT: either read the instructions for bubbling in math grid-ins or don't.

If you read the instructions, you'd be spending valuable time that could be used to pick apart questions instead. On the other hand, if you skipped the instructions, there's a pretty good chance you'd come to a question that you weren't sure how to bubble in correctly (and risk losing points there).

But, clearly, that's not you; you're at Magoosh, and you're going to go into your test ready for it.

Follow the grid-in instructions

Some of the directions — a lot, really — are pretty obvious. Bubble in only one circle per column, for example. And remember to fill in bubbles for every thing you write in (only the bubbles are checked!).

But that's not true of everything.

Writing in fractions is okay (but not mixed numbers!)

You don't have to use decimals while bubbling in. Even improper fractions are fine (e.g. $\frac{9}{5}$), so take advantage of that. Just remember that mixed numbers, like $1\frac{1}{2}$ aren't possible, since they'd read like improper fractions ($\frac{11}{2}$).

In fact, fractions are preferable. Most of the time, your scratch work will get you to a fraction before a decimal, and being able to bubble that in just saves you the time of punching numbers into your calculator.

You don't even need to reduce the fractions. Did you get $\frac{85}{5}$ as an answer? That's fine as is. Unless, that is, the fraction is too long to bubble in, like $\frac{185}{5}$. In that case, you have to either reduce or use decimals.

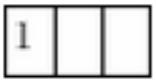
Besides that, fractions keep you from having to worry about repeating decimals.

Repeating decimals

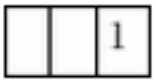
If you wanted to write $\frac{2}{3}$ as a decimal in an SAT grid-in, you could. But just writing in .66 would be marked as incorrect. You need to stretch it out to fill all of the four boxes. Either .666 or .667 would be fine, but why not just keep it as a fraction?

Write numbers left justified

If you want to write in the number 1, for example, you can write it either of two ways by the SAT's rules.



OR



But go with the first option. Why? Then you never get a question wrong for cutting the decimal too short, for one. If you round your answer too much, you'll lose points, so starting from the left helps you to remember to write it all out. Besides that, it just makes life easier.

Don't write in negative symbols

There's no negative symbol, so you can't answer with a negative. So what does that mean? If there's more than one possible answer to a question (say if it's a range from an inequality or one of two x values of a quadratic function), then make sure you take one of the positive options.

ANSWER EVERY QUESTION!!!

There are no points off for grid-in questions, unlike for other questions, so answer every question. If you've done some work on it but can't figure it out, make a reasonable guess and move on. If you really just don't understand it (or have only five seconds left in the section) bubble in a 1 or 0. Since the SAT makers love sneaky questions, those are relatively common answers. Can't hurt.

Common Traps

We all make dumb mistakes, sometimes. When I say "dumb mistake," I don't mean a mistake that I (or anybody else) would call stupid. This isn't about intelligence or how other people judge it. It's about what you yourself look at and say, "Oh … that was dumb."

Have you ever done that? Ever looked at a graded essay that's just been handed back and thought, "Oh. Whoops. Whatever." … or maybe a math test? "I can't believe I added instead of subtracting. Psshh."

It's easy to get worse results than you should because you're careless. That's as true on the SAT as it is everywhere else; if you don't watch yourself, you're going to lose points for things that you could have avoided. Some of the most common SAT mistakes are simple mistakes you should have avoided.

And — funny thing — because of how SAT scores are calculated, being careless doesn't just keep you from getting the points you should get. It actually punishes you for slipping up. If you were to just skip the question because it was difficult, you'd actually be better off than by answering the question too quickly and landing specifically on one of the trap answers the test makers set up for careless Joe.

So this is especially important.

Major common SAT mistake: choosing haste over caution

The SAT isn't a race. Seriously, your friends aren't going to high-five you if you beat the guy next to you by five minutes. Make sure you get the answers that you definitely can bag. The low-hanging fruit are your friends ... so don't brush them off.

Depending on the section and type of question, there are a number of different ways to keep yourself from making dumb mistakes.

Common SAT math errors

- Circle what the question is asking for. Is it the area of the circle or the radius? The value of x or of y?
- Write out each step to solving the problem. Only do the absolutely simplest things in your head. It may seem tedious, but it doesn't actually take much time. For mid-level things, always use your calculator. Don't multiply 8 and 12 in your head or on paper.
- ALWAYS write parentheses around substituted things. If you know x = -6, and y = 14 – x, make sure you don't switch addition and subtraction. Write y = 14 – (-6).

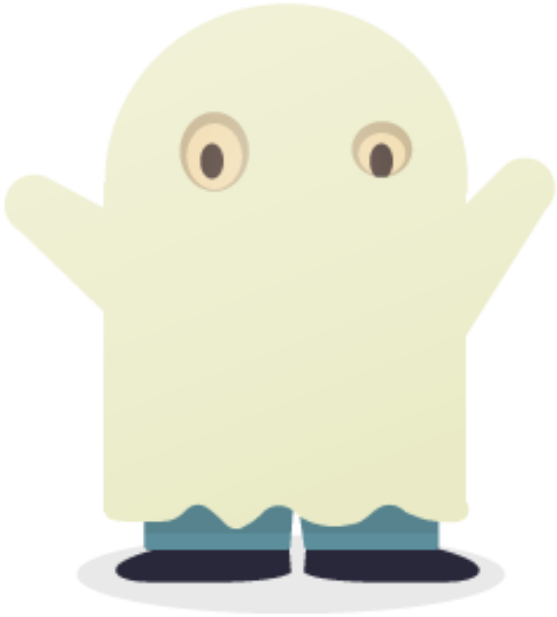
One of the best ways to improve SAT math is to avoid these errors.

How to be cautious and efficient

It's hard to keep up the pace when working through a timed section and double-checking everything. But the list of techniques above make that quicker. You don't want to have to answer each question twice — instead, you want to pinpoint how you make a careless error and avoid that specifically.

That takes practice. Next time you're doing practice problems, keep these strategies in mind. Hopefully these tips will make you a little more confident when making the confusing decision about SAT score choice. :)

Writing: The Common Culprits



Faulty Modification

> *Caused by a fatal error in design, the airship S.S. Doanblowup met its tragic end in 1915 in a sudden, ironic explosion.*

If you saw a sentence like this in the SAT writing multiple choice, you'd definitely want to make a correction (or in the case of Identifying Error questions, point out the problem). If you haven't spotted what the problem is already, go back and look at the first part of the sentence, up until "airship." Then ask yourself what exactly was "caused by a fatal error." Was it the airship? No.

Everything that comes before that first comma is supposed to modify or give details about one specific noun in the main sentence. If we go back and try to find that noun, we'll come pretty naturally to the word "implosion." Those two pieces — the noun and the modifier, have to be placed near each other in the sentence for the reader to make clear sense of it. As it is now, it's just plain old wrong, and the SAT writing multiple choice is going to test whether you know that.

How to spot modifier problems on SAT writing

The SAT has a special fondness for gluing an introductory modifier that doesn't refer to the subject to the start of a sentence. The example above has exactly that problem.

Any time you see an introduction like that offset by a comma, check to see if it should modify one specific noun in the sentence. Then check if that noun comes soon after the comma. If it doesn't, and there's another noun instead, then you've found the error.

How to fix the problem

There are two ways to fix this. First, we can move the modifier.

> *The airship S.S. Doanblowup met its tragic end in 1915 in a sudden, ironic explosion caused by a fatal error in design.*

The other option is rearranging the main sentence.

> *Caused by a fatal error in design, a sudden, ironic explosion brought the airship S.S. Doanblowup to its tragic end in 1915.*

In both cases, that modifier now falls next to the noun it's meant to give details about, which is the explosion.

Practice spotting modifier problems

Take a look at the practice Improving Sentences questions over on the College Board's site. There's at least one instance there, and there are many more in any practice tests you have. How quickly can you identify the issue?

Subject-Verb Agreement

When working on any type of SAT writing question, you should be watching for verbs that are underlined. Of course, part of the reason for that is that the SAT tests tense problems, but there's also the matter of subject–verb agreement.

What does subject-verb agreement mean?

Let's look at some simple examples. Which is correct?

> *Rihanna win hot-dog eating competitions all the time.*
>
> *Rihanna wins hot-dog eating competitions all the time.*

The verb win has to match up with the subject of the sentence, Rihanna, which means it has to have an 's' at the end, like in the second sentence. Even if you think these sentences sound alright without the 's', they're not proper English; you can't write them like that — definitely not on the SAT.

If the subject is singular (he, it, the Pope, white-pepper ice cream), then it needs a singular verb (does, was, is prancing, has congealed).

If the subject is plural (they, we, the Spice Girls), then it needs a plural verb (do, are speeding, have mutated).

Subjects separated from their verbs

The verb may not be next to its subject like it is in the examples above. Instead, it might be separated by a pretty big chunk of text.

> *The results of the contest, hotly debated by the members of the audience, was announced soon after the first contestant became sick.*

If you haven't already noticed the problem there, take a look at the verb "was announced." Can you find the subject that it refers to? It's all the way back at the beginning of the sentence.

Since that subject — the results — is plural, the verb should be "were announced."

Neither, either, everyone, everything, and each are singular

Some nouns aren't so clear in number. "Everything" sounds like a lot, right? So it should be plural, right? Well, no.

All of the words listed above refer to the individual pieces of a group. The verbs that get paired with them will also be singular to reflect that.

✗ *Neither of us think that competitive eating is a good career choice for pop singers.*

✓*Neither of us thinks…*

✗ *Everyone who watched the show were simultaneously entranced and disgusted.*

✓*Everyone who watched the show was…*

These can be especially tricky, so keep an eye out.

Automatically check for matches

Every time you see a verb whose subject isn't immediately obvious, go back and find it in the sentence. Do it again and again until it's second nature. It should only take a fraction of a second by the time you're doing it on your SAT.

Practice Quiz

Have a go at these five questions. They are not easy, so good luck!

1. The number of Americans living in rural areas have decreased (A) to unprecedented levels, with (B) most farmers saying that their days (C) in the country are numbered. D) No Error. (E)

2. According to (A) a recent study, an increasing number of people in their 30's choose (B) to remain single, a finding that (C), despite reports to the contrary (D), suggest (E) that fewer (F) people plan to have children. No Error. (G)

3. Students, many of whom (A) find themselves in nearly insurmountable debt, are compromising (B) on their career ideals, taking jobs that, while (C) in many cases highly lucrative, are (D) often hardly inspiring. No Error. (E)

4. Beaming satellite images from (A) Jupiter, a planet notoriously difficult (B) to photograph, was (C) a remarkable feat for a team of scientists, who, for the first time ever, (D) were (E) able to depict parts of the planet's atmosphere that were (F) hitherto (G) unknown. No Error. (H)

5. A veritable kaleidoscope of sea life, the seabed has been (A) constantly changing, affording (B) marine biologists with (C) a view into (D) a world both unique and (E) awe-inspiring. No Error. (F)

You'll find the answers on the next page.

Answers:

1. A (number has decreased)
2. E (suggests)
3. E (No Error)
4. E (team…was)
5. C (with is unnecessary)

If you got all five of those correct, then you are an SAT grammar beast. Way to go!

Pronoun Problems

Here are the two big things you have to know about pronouns. A pronoun refers to a noun in the sentence. A pronoun can either take the Subject Case or the Object Case.

> *Mary lent her book to Tom. She told him to return it to her soon.*

In these two sentences we have the nouns, Mary and Tom. Instead of repeating Mary and Tom, we use the pronouns *she* and *he* (*she* for Mary and *he* for Tom, of course).

Notice that the sentence does not use *he* but *him*. If we are talking about the subject of the sentence and we are referring to Tom, then we want to use *he*. If Tom is the object of the sentence, then we want to substitute *him*. Therefore *he* is the subject case and *him* is the object case.

For Mary, *she* is the subject pronoun and *her* is the object pronoun. Notice how in the second sentence, the recipient of the action is Mary, which means the pronoun must be in the object case. So we use *her*.

Singular pronouns

> *I gave Tom an apple. Tom handed it back to me.*

I is the first person subject pronoun. *Me* is the first person object pronoun. *It* refers to the apple and is a third-person singular pronoun.

Plural pronouns

> *We gave them a call. They did not answer but called us back later.*

We is the first-person plural subject pronoun (I know, that's a mouthful). And *us* is the first-person plural object pronoun. *They* is the third-person plural subject pronoun and them is the third person.

Takeaway

Pronouns may seem basic, but you got to know the fundamentals before you try the harder stuff.

Subject vs. Object: "And I" vs. "And me"

The stereotypical English teacher has a few grammar rule favorites, some of which are, unfortunately, not even real rules.

Do you remember the childhood saying, "step on a crack, break your mother's back"? Imagine if that was so ubiquitous (a good SAT word — look it up!) that everyone repeated it any time you stepped on a sidewalk crack, even now? And what if they *believed* it?

Although it's not quite to that extreme, the sad truth is that some "common knowledge" about English grammar isn't so different. It's been repeated and repeated and repeated, but it's pretty much just a myth. And the SAT does not peddle in myths.

My friend and I? My friend and me?

This is an SAT favorite. It's shown up on a number of tests, and it's a perfect trap for anybody who trusted their 8th grade English teacher just a little too much. There is, admittedly, plenty of truth in the rule: When you're listing other people as well as yourself, I or me should come last. Think of it as being polite and holding the door for the other names.

But notice I said "or me." When the names are the subject, use I. If they are not—a notable example being after prepositions—then use me, the object form. If we always used I when making lists of people, we'd be confusing subjects and objects.

✓ *My pinkie toe and I have been through some hard times.*

✗ *The world is against my pinkie toe and I.*

✗ *A polar bear ate my pinkie toe and I.*

That second example comes after a preposition (against) and should take the object form, me. "And I" can be wrong even without the preposition, though, as long as those two or more people are objects in the sentence, as in the third example above. The correct forms are:

✓ *The world is against my pinkie toe and me.*

✓ *A polar bear ate my pinkie toe and me.*

By the same token, don't start a sentence with "… and me".

✗ *My pinkie toe and me fought off a polar bear.*

✓ *My pinkie toe and I fought off a polar bear.*

Just focus on whether or not it's the subject of the sentence. If that distinction isn't clear for you, then take out the other player (e.g. "my pinkie toe") and see how it sounds. That's the best method to decide. Saying "A polar bear ate I" sounds good to approximately nobody, so don't write it — even if there's a pinkie toe that comes first.

And if it's still a bit unclear, then you can roughly assume that I is more likely correct near the beginning of the sentence, while me is more common at the middle or end.

Wordiness and Redundancy

I've mentioned before that the SAT includes a number of writing questions that check whether you're inclined to overuse the passive voice. And I've mentioned that I don't think it's a very fair thing to assess, but there is a reason why the College Board built it into the test. The passive tends to make sentences wordy and awkward, so it's best to avoid it if possible.

But that awkwardness can show up even without a passive structure, and it's a key difference between a middling SAT essay and a high-scoring essay. If your writing sounds unnatural, it really works against you.

I'm going to give you a simple technique for avoiding that kind of awkwardness.

What's the action?

Every sentence in English includes a verb. But there are basically two different kinds of verbs: connecting verbs and acting verbs.

Connecting verbs don't carry a whole lot of meaning. Instead, they just join the pieces of the sentence. "Be" is by far the most important connecting verb. There's no action, really. It's just a kind of glue.

Some examples of sentences with connecting verbs:

> *My hobby is collecting other people's receipts.*
>
> *I have a stash of thousands of them under my bed.*
>
> *Not many people do as much digging through trash as I do.*

These kinds of verbs are important—we couldn't form sentences without them—but they're inherently weak. They're just not very descriptive.

If you use the action for the verb, you'll usually have a stronger sentence. It'll generally be more concise, too.

> *I collect other people's receipts.*
>
> *I've stashed thousands of them under my bed.*
>
> *Not many people dig through trash as much as I do.*

Notice that each of those acting verbs was included in the first set of sentences, but in different forms. They're totally vital to the meaning, so when we replaced them with connecting verbs, we had find other places for them to fit into. Why bother?

Over-formality in SAT essays

Yes, you should write formally for your SAT essay. But you have to be natural. Students often go too far, and while trying to sound more academic, they throw in crazy constructions. And guess what … more often than not, those clunky sentences have a connecting verb in the middle and an action verb transformed into some other part of the sentence.

Fix them by finding the action and making it the main verb.

✗ *The theory has many people who disagree with it.*

✓ *Many people disagree with the theory.*

✗ *Students who do a lot of reading tend to have better writing.*

✓ *Students who read a lot tend to write better.*

✗ *The crime which he was found guilty of was shaving the school mascot's costume.*

✓ *He was found guilty of shaving the school mascot's costume.*

Notice in that last one that there's still a passive structure — "was convicted of" — but that doesn't mean it's wrong. It's more important that the action is the main verb.

Hard to understand = bad

If you think a sentence sounds academic (and therefore good) because it's hard to follow, then think twice. Why is it tough? Is it because of the structure or the meaning? Unnecessarily complicated sentence structures are not a good thing.

So make it clear.

Wrong Verb Tense

The Basics: Verb tenses on the SAT

Are you a native English speaker? If you are, then forget the SAT for a moment and just be grateful that you don't have to learn our language, because it's riddled with some really complicated verb patterns. Whereas some languages are happy enough to live simpler lives and only use a few patterns for past, present, and future, English has flashy tastes and likes to overindulge. Take for example, this sentence:

> *That stadium will have been being built for three years come May.*

There are five words in that verb construction. *Five*. It's like a gaudy necklace of helping verbs. And they're mostly just there to show when the verb happens.

The good news is that you don't need to know the names or explanations of English tenses for the SAT. And there's no bad news! Instead, there's actually some more good news.

You already know which tenses are right in SAT writing.
To be fair, that's only really true if you are a native speaker. If you're not, then I won't lie: you do have an extra obstacle to overcome.

But the point is that for English speakers, the different times that different tenses signify are already hard-wired into your thought patterns. All you have to do on the SAT is make sure the times given in the sentence are consistent and logical. Any time you see a verb underlined in writing multiple choice, you should check that the tense given feels natural with the times that the rest of the sentence presents. Do you smell anything fishy in this example?

> *Ernest Hemingway's short stories, including the favorite "Indian Camp," continue to be highly influential pieces of fiction despite the fact that they have been written over fifty years ago.*

If you do, then you might be onto something. It might be rotten.

The time "over fifty years ago" sounds pretty strange when put next to "have been written." You don't need to know why; you just need to know it's wrong. When you see that verb underlined, think twice about the time it refers to.

If there's a sequence of events, make sure their tenses put them in the right logical order. *"Having just been swimming, Maria smelled like chlorine."* makes much more sense than *"Having just been swimming, Maria had smelled like chlorine."*

Speaking of swimming, there's something else you need to watch out for.

Swim, swam… swammed?
Each English verb has a few basic forms. Kids who learn English in other countries can often rattle off lists like *do/did/done* and *eat/ate/eaten* faster than we native speakers can. And there are some verbs, like *swim*, which we get a little confused about at times. Take a look and make sure you know these sets.

- *Swim/swam/swum*
- *Ring/rang/rung*
- *Forget/forgot/forgotten*
- *Forgive/forgave/forgiven*
- *Lay/laid/laid*
- *Rise/rose/risen*
- *Swing/swung/swung*

There are countless others, most of which you wouldn't think twice about. But some of them might have you making things up in conversation (e.g., "I would've swang if I'd known he was going to keep throwing strikes.") that the SAT just won't stand for.

Preparing for SAT writing multiple choice is all about getting into the habit of looking for specific problems associated with the type of word that's underlined. If you see a verb underlined, look for one of the problems above.

SAT Verbs: The Perfect Tense

Two of the more confusing tenses in English are the present perfect and the past perfect. What makes them so is both describe continuous actions. To illustrate, let's take a look at the following sentences:

1) Last night, I walked my dog.

2) I have walked Bucky every night for the last two years.

In the first sentence, I am doing the action, 'walk', only once. In the second sentence, I am describing something that has taken place on a number of occasions in the past and continues on till today (meaning tonight I will most likely walk Bucky).

The first tense is the simple past (if you look at my description it is very simple). The perfect tenses, on the other hand, aren't so simple. To show you what I mean, let's take a look at the past perfect.

1) Before I moved to California, I had walked Bucky in the mornings, not at nights.

Whenever we use the past perfect, we want to use the following tense:

Past Perfect: Had + Participle (plus another verb in the Simple Past)

Why use past perfect in this sentence? Well, if you notice, I am talking about two events that happened in the past: my walking Bucky and my moving to California.

Whenever you are dealing with two events in the past, one of which started or happened before the other, you must use the past perfect tense to describe the event that started first.

First Event: I walked Bucky in the morning = Past Perfect Construction

Second Event: I moved to California = Simple Past

Another way to think of the past perfect is with specific dates. Let's say I moved to California in 1984. I walked Bucky every morning from 1981 to 1984. The sentence implies that once I moved to California I no longer walked Bucky in the morning. That is, an event that happened repeatedly in the past stopped when another event happened. That interrupting event uses the simple past.

Now let's try a couple of practice questions:

1) After she graduated/had graduated from high school, Jessica decided/had decided to backpack through Europe.

2) Though he studied/had studied the entire weekend, Bobby was only able to get a B- on his Calculus mid-term.

For sentence #1, we have the first event: Jessica graduating. This event must be in the past perfect tense: *had graduated*. The more recent event, her deciding to backpack, is in the simple past: *backpacked*.

For #2, the first action is the studying, so we need had studied.

Key Points

1. Present Perfect: Has/Have + Participle = describes action/event that happened in the past and continues in the present.
2. Past Perfect: Had + Participle = describes an action/event in the past that happened before another action in the past.
3. Whenever we use the Past Perfect, we must also have another verb in the sentence that is in the simple past.

SAT Verbs: Conditional Tense

The conditional tense is rarely tested on the SAT, and usually when it is, the answer jumps out at you because it just sounds weird.

An easy way to think of the conditional tense is as the "if" tense. It describes something that hasn't happened but that could happen. Take a look:

1) If I had studied more, I would have done well on the test.

2) If the sun comes out, the ice will melt.

The first sentence describes something that didn't happen but that could have happened had something else taken place in the past. The conditional tense has a formulaic way of describing this: If X had "Verb"-ed, then Y (some event or outcome). Or even more simply, "Had X "Verb"-ed, then Y".

The first sentence is even more straightforward and describes an event that can happen in the future if another condition is met. This simple conditional tense doesn't really come up on the SAT.

Anyhow, you probably get this, since it's the Basic English you've known for as long as you can remember. So the SAT isn't going to test something that most students get right away. Instead, the conditional tense would be a larger part of a question and probably won't be tested directly.

If scientists had developed (A) a more systematic way of (B) classifying planets, although (C) they probably would not have originally considered Pluto a dwarf planet, the designation it carries today (D). No error (E).

The answer is (C), since there is no room for a conjunction in the conditional tense. Remember, you need "Had X Verb-ed, then Y (some event). Therefore, you don't need "although". Of course many of you can just tell by reading the sentence that the "although" sounds really jarring. I know, I know - you shouldn't use your ear on the SAT Writing section. But there are some instances in which a word clearly doesn't belong. In this specific case, you have more than your ear to guide you; you now know the conditional tense.

SAT Verb Tense Quiz

Do you know your perfect tense from your past tense? Do you know whether you can mix past tense with present perfect? Below are a few questions to help you hone your grammar chops!

1. *Before moving to New York, she has lived in California for five years.*
2. *Ever since I was a child, the Wizard of Oz was my favorite movie.*
3. *We waited for Mary for an hour before she had finally shown up.*
4. *She has been at the top of her class for four consecutive quarters.*
5. *In 1994, few have known of the Internet; by 2014, few in developed world will have been without an Internet connection.*

Check your answers on the next page!

Answers:

1. had lived

We want the past perfect because we are describing an ongoing event in the past that happened before another event (*moving to New York*).

2. has been

Present perfect is used to describe an event that started in the past and continues in the present.

3. had waited…showed up

We need the past perfect to describe the event that happened first: waited. The second event in the past, takes the simple past.

4. Correct

5. Knew…will be

Simple past is used to refer to an event at a specific point in the past (1994). Simple future is used to describe an event at a fixed point in the future (in 2014 few will be without an ...).

Diction Errors

One of the least common — but no less diabolical — errors you can encounter on the writing section of the SAT is called the diction error. You may even be familiar with this error type (though you probably never referred to it as a diction error). You probably thought something along the lines of, "I hate you evil <expletive> SAT. How can you make a grammar question about vocabulary?!?"

Because that's essentially what a diction error is on the SAT — the old switcheroo, where one word that sounds an awful lot like another word is incorrectly used in a sentence.

Here a couple examples of the dreaded idiom:

> *The scientists, once they discovered that each had tackled a similar line of stem-cell research, realized that they would both benefit if they corroborated in their research. No error.*
>
> *The first two years are the most formidable — it is during this time that many of our enduring personality traits take root. No error.*

Even with that little introduction nudging you as to what was being tested, you may have struggled on these two questions. So we know that a word is being mistakenly used for another word — a word that sounds very similar. For the first question the word should be "collaborated", not "corroborated", which means to confirm or give support to evidence.

For the second question, the word should be "formative", not "formidable", which describes something that is so big or amazing that it commands respect (think of Lebron James's skills on the basketball court).

So, these diction errors are truly formidable, because you're just not looking out for them. In the questions above you are likely to pick an answer that sounds weird ("take root"). But that doesn't mean you should start looking for them everywhere. They pop up about once every other test, if that often. Diction errors are almost always near the end of the Identifying the Error section (they don't show up in the other sections). This fact shouldn't be surprising, considering that the hardest questions come at the end of the grammar section.

So what to do? Know that they will appear and always be on guard if you can't seem to find a mistake in an Identifying the Error question. Carefully, look to see if the correct word is being used.

Below is a list of some of the common diction errors:

- Affect vs. Effect
- Conscientious vs. Conscious vs. Conscience
- Crutch vs. Crux
- Empathetic vs. Emphatic
- Flaunt vs. Flout
- Ingenuous vs. Ingenious
- Irregardless – no such word exists

The Dreaded Idiom

Most common SAT idioms

Just as idioms lack any justification for the way they are constructed, so too do idiomatic phrases. For instance, I just used a common idiomatic phrase (Just as … so too; see below). In other words, certain phrases contain certain words and prepositions.

To give you example, let's take the most common SAT idiomatic phrase (not only … but also). When the words "not only" appear, at some point in the sentence the words "but also" must appear too. That's why I use those little dots in between the two phrases. Those dots mean that a bunch of words can come in between the "not only" and "but also".

To highlight this fact, I've bolded the idiomatic phrase in each of the sentences below. I've included the top 10 most common idiomatic phrases you are likely to encounter on the SAT. Indeed, this list accounts for the vast majority of idiomatic phrases you are likely to see test day.

1) Not only … but (also)
Function: Show that two ideas are similar. Make sure that parts of speech are parallel. (I've highlighted the parts of speech below).

> *I'm **not only** tired of waiting in line **but I am also** frustrated at having to pay so much for the tickets.*
>
> *Pauline Kael **not only** changed how movie reviews were written **but also** influenced almost every single movie critic writing today.*

2) Either … or
Function: Show difference between two nouns/noun phrases

> *For the most part, when applying to college, you can **either** take the SAT **or** the ACT.*

3) Neither … nor

Function: To show two nouns/noun phrases do not apply in a certain instance. Remember: it is never "neither…or". Also, make sure that the two parts are parallel (though the SAT usually doesn't directly test this).

> ***Neither** a perfect SAT score **nor** a perfect GPA will guarantee admission into Harvard — one must also show exceptional talent in a certain field.*

4) So … that

Function: Basically, whenever you see "so" followed by an adjective (adjective phrase) make sure that a "that" follows the adjective phrase.

> *The mayor was **so** revered during his time **that** the citizens built a statue for him in the public square.*
>
> *Galileo is **so** often accorded the utmost respect for a scientist **that** we forget that he did not always follow the scientific method in his work.*

5) Not A but B

Function: pretty straightforward

> *He was **not angry but upset** that I had forgotten to call him.*
>
> *The SAT is **not a test of intellectual aptitude but a measure of how well you take the SAT**.*

6) Think of … as

Function: pretty straightforward

> *He likes to believe that his colleagues **think of** him **as** a nice guy.*
>
> *His peers **thought of** Rachmaninoff **as** a throwback to the romantics; today, many musicologists maintain that the composer was far more forward thinking than his contemporaries knew.*

7) As … as

Function: compare two things. Remember, it is never "as … than"

> *The lion is not **as** fast **as** the cheetah.*
>
> *While the novels of Thomas Hardy are not **as** wide known **as** those of Charles Dickens, Hardy is more highly esteemed amongst academics than is Dickens.*

8) At once A and B (the A and B stand for adjectives that must come between "at once" and "and")

Function: To show that a person or thing has two opposite traits or behaves in two opposite ways. Therefore, A and B will basically be opposites.

> ***At once charming and rude**, George flattered the hosts while ignoring the other guests.*
>
> ***At once enlightened** because of his extensive knowledge of ancient civilizations **and uninformed** because of his total lack of interest in current events, Johnson, it is said, lives in a time warp.*

9) Just a s… so (too)

Function: to show that two different nouns or noun phrases are equal. The parenthesis around the "too" means that the "too" is optional.

> ***Just as** running will get you into quick shape, **so** will swimming.*
>
> ***Just as** Picasso revolutionized the way an artist approaches the canvas, **so too** Beethoven utterly changed the way a composer approaches the symphonic form.*

10) Between A and B

Function: This is to show the difference between A and B (but I'm sure you knew that). The reason this is tricky is that especially on the Identifying the Error section, the SAT will replace "and" with "or".

> ***Between you and me**, the SAT likes to trap students who think that the pronoun "I" is always preferable to "me".*
>
> *Since colleges know that students will have trouble choosing **between one major and the array of different fields** offered by the college curriculum, they allow students to remain "undecided" for up to 2 years.*

3 Ways to Learn SAT Idioms

Use Quizlet.com

Everybody loves flashcards — well, at least when they are studying for the SAT. Flashcards make memorizing facts easier. Instead of having index cards that end up getting lost — or at least dog-eared and smeared — quizlet.com provides a fun and convenient way to use flashcards on-line. You can make your own flashcards, or in the case with idioms use the premade flashcards. I'd recommend a group that has about 100 of the common SAT idioms. This is great in addition to Magoosh's Free SAT Flashcards.

Listen to the news

This might not sound like a reasonable thing to do, but the news will always employ the proper use. This will tune your ear to recognize idioms (by the way the idioms section is the only part of the grammar section where you should rely on your ear — sounding out grammar can often get you into trouble).

Try to come up with your own sentence

One way to make sure you don't forget idioms is to starting using them. When you are actually confronted with an idiom on a question, try creating your own simply sentence to see if the idiom sounds correct. For instance:

He denied me access to his side of the room.

Vs.

He denied me access on his side of the room.

The second example sounds a bit off and so the idiom is *access to*. Using this strategy is fun and effective, and definitely something you shouldn't protest against.

Illogical Comparisons

One of the sneakiest question types on the SAT Writing section is when two things or people are being illogically compared. I always tell students to remember that you can only compare apples to apples and oranges to oranges.

Let's see if you can spot the illogical comparisons below:

> *She enjoyed Hayden's symphonies more than Mozart, though she preferred Mozart's piano music to Hayden.*
>
> *The number of exports in Arlandia this year was fewer than the exports in 2007, prompting austerity measures from the government.*
>
> *I prefer the novels of George Orwell to Aldous Huxley, because the latter is more concerned with affecting a air of erudition than telling a good story.*

For the first sentence, we are illogically comparing Hayden's symphonies to Mozart himself. You can't compare a musical piece to a man. Instead, we want to compare the symphonies of Hayden to the symphonies of Mozart.

> *She enjoyed Hayden's symphonies more than those of Mozart, though she preferred Mozart's piano music to Hayden.*

Notice that I did not say 'Mozart's symphonies', but 'those of Mozart'. The 'those' is a pronoun that refers to symphonies. Had we only been comparing one thing, say symphony, then we would use 'that of Mozart', where 'that' refers to a singular noun.

Now, let's take a look at both sentences 2 and 3 corrected:

> *The number of exports in Arlandia this year was fewer than that of 2007, prompting austerity measures from the government.*
>
> *I prefer the novels of George Orwell to those of Aldous Huxley, because the latter is more concerned with affecting a air of erudition than telling a good story.*

Takeaway

Always make sure you are comparing the same two nouns. In order to avoid wordiness you can replace a singular noun with that and a plural noun with those.

Passive Voice

Take a look at the following two sentences:

1) The midterm exam was graded by the teacher.

2) The teacher graded the midterm exam.

The first one uses passive tense ("graded by the teacher"). In English class — and in writing in general — this use of the passive tense is taboo. So you can bet the SAT would always choose the active tense in the second sentence over the first passive voice used in the first one.

But the passive voice on the SAT is a little subtler than that. Take a look:

1) Considered overly sentimental, Sergei Rachmaninoff was at one time ridiculed by music critics.

2) Music critics at one time ridiculed Sergei Rachmaninoff for being overly sentimental.

3) Music critics were at one time ridiculing Sergei Rachmaninoff for the reason that they thought his music overly sentimental.

A little tougher, right? So let's start with the first sentence, which is passive tense (notice the "by music critics"). At first glance, you would eliminate it. The thing is the SAT does not technically consider this passive construction incorrect. See, the sentence is complex, using the phrase to describe Sergei Rachmaninoff ("Considered…"). So the passive tense is okay.

You can also write sentence #1 in active tense, as sentence #2 shows. Notice that sentence #2 is even a little shorter, which the SAT typically likes.

Here is the thing: you would most likely never have sentence #1 and #2 as answer choices (though, if for some reason the SAT did split hairs like this, always choose an error free sentence in active voice over an error free sentence in passive).

How the SAT tries to trick students is by creating a sentence in active voice that is actually not grammar free. Notice sentence #3 above. Sure, it's in active voice; however, it is kind of wordy ("for the reason that" vs. "because"). If you had to choose between #1 and #3 always choose #1, a sentence that is grammar free but that uses the passive voice.

To simplify things:

- Active > Passive
- Passive > Active (but wordy)
- Passive > Active (but with grammatical errors)

One last thing to watch out for is the word "by". In other words, just because you see "by" does not mean a sentence is using the passive voice.

> *1) Refrigerators work by cooling ammonia and releasing heat back into the surrounding environment.*
>
> *2) By studying every day, you can do well on the SAT.*
>
> *3) The senior members banished him from the club by first taking a vote.*

In the three sentences above, "by" is used as "through" or "by means of". They are not the result of taking a verb, slapping a "by" in front of and putting the resulting verb before a noun.

Takeaway

So remember, if a simple sentence is in the passive voice, "He was considered a genius by his contemporaries", the SAT is most likely going to have an answer that is grammar free and in active voice. Pick this one. However, in more complex sentences, sometimes the SAT will favor passive voice. In which case, the other answers will probably have something wrong with them. Don't just choose them because they are in active tense.

Run-On Sentences

Even if you're not a grammar nut, you've probably heard the term "run-on sentence" before, and you probably know that they're bad. Most elementary school teachers get that across. But not everybody knows what they really are or how to avoid them. And that's dangerous — SAT grammar expects you to know how to avoid run-ons.

Combining simple sentences

SAT writing multiple-choice questions love to give you complex sentences to pick apart or simple sentences to combine (in improving paragraphs questions). Joining simple thoughts into clearly flowing, logical constructions is one of the most important factors of good writing, and it's for that purpose that we have the rules of grammar that the SAT tests you on.

So if we have two simple sentences, like "My mother only eats goat meat and four-leaf clovers" and "I had a hard childhood," there are a few different ways to stitch them together into one sentence. You might use a semi-colon, for instance. But let's look at what not to do.

What are run-on sentences?

Sentences can't just be thrown together into a single string and treated as one thought.

✗ *I had a hard childhood my mother only eats goat meat and four-leaf clovers*

If you can put a period between two pieces of a sentence without making a fragment, then they can't just be put together without some kind of grammatical glue.

That's usually pretty clear—the big problem is knowing which glue to use.

Don't combine whole sentences with a comma

A comma is *not* a period.

✗ *I can't hear you, can you please use the megaphone?*

✓ *I can't hear you. Can you please use the megaphone?*

If you can put "and," "or," "but," or "so" after the comma, though, you're alright.

✓ *I can't hear you, so can you please use the megaphone?*

Using a comma in place of a period is called a "comma splice," and it's one of the most common writing errors that high schoolers make. And it'll come up a few times in improving sentence or identifying sentence error questions on your SAT, so don't forget it.

"And" alone is not enough

Although using a comma and "and" together to join sentences is correct, "and" alone doesn't finish the job. Instead, it leaves you with the same problem that using a comma alone created: a run-on sentence. The same is true for "but," "or," and "so"—all of them need commas to combine sentences.

Of course, all of those words also have other jobs. "And," "but," and "or" can just combine lists of nouns, verbs, or adjectives, and then they don't need commas.

✗ *I bought glow-in-the-dark sunscreen and I went to the beach last night.*

✓ *I bought glow-in-the-dark sunscreen and went to the beach last night.*

Because there's no "I" in the second half of that corrected sentence, the "and" is just combining "bought" and "went" into a short list, and that's okay.

What to remember during your SAT: comma vs. period

If you see a comma or an "and" underlined in a writing multiple-choice question (but not used together), ask yourself whether they can be replaced by a period. If they can, then there's the problem.

Adverbs

You thought you were safe with your parts of speech once you left the sixth grade. Well, think again! The SAT Writing section, while testing advanced grammatical concepts, will try to nail you on one type of parts of speech: The Adverb.

An adverb is a word that modifies a verb or adjective. It usually answers any of the following questions: How much, how often, and where.

> *He frequently studied* (how often did he do the verb 'study.')
>
> *She was extremely displeased* (to what extent was she the adjective displeased).
>
> *He was known to run through the mountains* (where did he do the verb 'run')

The SAT's focus on the adverb is not that surprising. Few people, in everyday speech, use adverbs properly. And when there is a disconnection between the way people speak and the proper way to speak, you can bet the College Board is waiting for a grammar question to snare you.

To see how we can fail to spot the proper use of the adverb consider the following examples:

> *Mary yelled to Tina, "Drive safe - it's wet out there."*
>
> *The new PC was the most clever designed computer the market had seen in years.*

If you rely on your ear, you will probably think that both sentences are fine as is. When looking for an adverb in a sentence determine if there are any words modifying a verb or adverb.

In the first case, the verb is 'drive.' The word that modifies 'drive' is 'safe.' 'Safe' is an adjective, and you cannot modify a verb with an adjective — you need an adverb. To make 'safe' an adverb simply add –ly: Drive safely.

For the second sentence, we need an adverb to describe how a computer is designed. 'Clever' is an adjective. So by adding –ly, we know have an adverb: most cleverly designed computer.

Takeaway

Know your adverbs, and always be on the look out for them on the SAT Writing section — they are very difficult to spot especially if you rely on your ear.

Adjectives vs. Adverbs

The SAT doesn't test the parts of speech — by which I mean you don't need to be able to define "adverb" — but using them correctly and spotting errors will earn you points in the writing sections. If you did many Madlibs as a kid, you know your parts of speech already. But in case you didn't, let's make the distinction between adjectives and adverbs clear.

Adjective: Modifies a noun. "Big," "white," "noxious," and "friendly" are adjectives. (Putting those words together makes me think of a guy I used to sit next to in chemistry.)

Adverb: Modifies a verb, adjective, or adverb. Some examples are "completely," "carefully," and "soon." (Those ones, on the other hand, describe how students say they'll do their homework.)

How to tell the difference between adjectives and adverbs

The easiest difference to spot is the *-ly* construction. Adverbs end in *-ly*, and adjectives don't. But wait a minute … looking back at the examples above, you see that's not always true. "Friendly" is an adjective; at the same time, "soon" is an adverb. Use *-ly* just as a rule of thumb. To be certain, you have to check what the words modify.

If you can do that, the problem is usually pretty easy to spot. But they can be tricky, sometimes — the test makers always have a trick up their sleeves.

Adjectives with sensation words

The SAT uses adverbs after sensation verbs to make modifier problems that aren't so blatant. If I say, "She put her hand on mine because she felt badly," there's a problem, however subtle.

In this case, "badly" doesn't describe the action of feeling. Instead, it describes her emotions. Or at least, it should. But if we want that to be the case, we have to change it to "bad."

If you used the words "feel" and "badly" together, it would describe an action the action of physically feeling something, i.e. touching.

If the words "smell," "feel," "taste," and "look" are followed by an adverb, think twice. Is the verb supposed to be an action or not?

> *Allen looked quick. = Allen seemed fast.*
>
> *Allen looked quickly. = Allen glanced at something.*

Subconscious error correction

Sometimes these problems are hard to see not because of anything so tricky as sensation words but because of our own reading habits. Because the difference between a correct and incorrect answer is often just two letters (*-ly*), we sometimes read the sentence wrong, substituting the correct word for the error.

You may know that “heavy loaded” is wrong, but if you read quickly, you might think it says “heavily loaded” and miss the problem.

This is why you should always read SAT writing questions again if you don’t see a problem the first time around. Go through systematically, checking each word for the problems it could create.

If, while going through piece by piece, you come to an adverb or adjective, link it to the word it should modify and check whether or not you want the *-ly*.

Writing: Question Types

Improving Sentences Questions

The most common type of question on the Writing section is called "Improving Sentences". You probably know these guys: they are the questions in which there is an underlined part of a sentence and you have to figure out which of the five answer choices represents an improvement of the original sentence. For example:

> *Known to few outside of Africa, the Comoros islands are a series of three islands nestled in the Indian Ocean, which are home to 4.5 million inhabitants, mostly Muslim.*
>
> A. which are home to 4.5 million inhabitants, mostly Muslim
> B. and they have mostly Muslim inhabitants of which there are 4.5 million
> C. home to 4.5 million inhabitants, most of whom are Muslim
> D. they are home to 4.5 million inhabitants, most of which are Muslim
> E. of which the 4.5 million inhabitants many of them are mostly Muslim

Below are some important points to keep in mind when dealing with Improving Sentences.

#1) The underlined part is always the same as (A)

As you can see from the example above, answer (A) is the exact same as the underlined part in the sentence. This will always be the case for every single Improving the Sentence question. So save yourself time — if the underlined part is clearly wrong, eliminate (A) without reading the answer choice.

#2) The underlined part can sometimes be correct

Just because there is a line under the text in the sentence does not mean that the underlined part is automatically wrong. Sometimes, the sentence is free of any errors. If that's the case, mark answer (A).

#3) There is an entire section devoted to Improving the Sentences

In the 35-question writing section, the first eleven questions you see will be Improving the Sentences. However, you will also have an entire Improving the Sentences section — which will always be section 10, the very last section on the test. This section will consist of fourteen questions, giving you a whopping total of 25 Improving the Sentence questions. The takeaway? You should learn to become very good at these early on. That way, you'll have more time for the rest of the long writing section.

#4) One mistake makes the entire answer choice wrong

A good way to get quick at these question types is to spot a grammatical error in an answer choice. To do this you will often want to skim the answer choices instead of reading them word for word. Also, you might want to identify what is wrong with the original sentence, so you can eliminate those answer choices with similar issues.

And in case you're not positive about the example question above, the answer is (C) :-)

Shortcut for Improving Sentence Questions

There are plenty of "tricks" to taking the SAT out there, and a whole lot of them are shams. Yes, the College Board is sneaky, and the SAT is full of trap answers. But there's not really any single rule you can follow to avoid those traps.

For example, even though the word "never" can easily make an otherwise good answer choice incorrect, you can't automatically trash any answer with that word. You just have to be wary of it.

So I'm not going to tell you I have some magic secret that'll get you a higher score on the day of your SAT. That takes practice, more than anything. But I do have a shortcut that might save you some time.

Improving Sentence questions can be a time-suck

"Improving Sentences" questions are one of the three types that the SAT's writing multiple choice sections throw at you. They don't look as involved as improving paragraphs questions, but they can be surprisingly time consuming because it's rarely easy to predict how the error you're given should be corrected. A lot of the time, there are several different ways a sentence could be improved, so you have to check each answer choice to find the one that resolves the problem and doesn't create new ones.

And since the differences between those answer choices can be really subtle, many SAT-takers find themselves going back and forth between two or three answers, reading and rereading.

A pattern in the correct answers to Improving Sentence questions

If you've been prepping seriously, you might already realize that the SAT tests wordiness and style as well as more clear-cut grammar. Using too many words tends to make a sentence clunky — the best style is usually the one that gives all the necessary information in as few words as possible.

So it may not be surprising that the best version of a sentence is often a shorter one, if not the shortest. The trick is simple:

Shorter answers are more likely to be correct answers.

Again, I can't give you a failsafe rule to follow, but the tendency of short answers to be right answers is really worth noting.

Just to prove the point, I went through three official SATs and checked the lengths of each correct answer compared to the lengths of other answer choices. For each question, I ranked them from 1-5. The shortest answer choice was 1, and the longest was 5. If more than one answer choice was

the same length, I used the highest ranking for all of them (e.g., if the two longest answers were the same length, they'd both be marked as 5s).

The results were pretty wild.

Length of answer	Number of times correct
1 (shortest)	27
2	19
3	16
4	9
5 (longest)	4

The shortest answer choice was correct 36% of the time. Meanwhile, the longest answer choice was only correct 5.33% of the time. That's an enormous difference.

Start Improving Sentence questions from the short answer

Because you end up doing a process of elimination for Improving Sentence questions anyway, you might as well start with the answer that's shortest. A third of the time, you won't have to check the others. As long as it fixes the error that the original sentence presented, it's got to be the right one, because it won't be too wordy to be correct.

Also, if you're running out of time on the final section of your SAT, which is made up of just 14 Improving Sentence questions, just bubble in the shortest answer to each of the last couple questions. Even if they're not all right, you'll get points out of it on average.

Identifying Sentence Errors Questions

Another common question type you will see on the SAT writing section is called Identifying the Errors. These questions are pretty straightforward: choose the underlined segment that is incorrect. If none of the underlined segments (A-D) are incorrect, then the answer is (E), which stands for "No error."

Let's take a look:

The number of loggerheads turtles that wash up on beaches each year is (A)
increasing, a finding (B) that troubles those (C) environmentalists working to
ensure it does (D) not go extinct. No Error (E)

You probably recognize these questions as well, if you've ever taken the PSAT. Familiar though these questions may seem, there are still some important points to keep in mind when dealing with the Identifying the Error questions.

1) You don't have to know why it is wrong

The great thing with "Identifying the Error" is you only have to identify the error (makes sense!). You don't need to correct the error (that's what Improving Sentences is for).

That said, it is a good idea to know what the correct answer should be. For instance, in the question above, the answer is (D). If you discover this and just think, "Oh, I see, it kinds of sounds weird", you are not learning anything.

On the other hand, knowing that "it" doesn't refer to a noun in the sentence (the noun used in the sentence is "turtles", so "it" should be "they") will help you avoid similar mistakes in the future.

2) Read the entire question

Sometimes, you get hung up around answer (B) or so, thinking, something doesn't sound right with that. That may very well be the case. However, read the entire sentence. Sometimes a far more obvious answer is waiting at the end, and you realize that what you thought was questionable was right all along.

3) The dreaded "No error"

First off, there will be some questions in which the answer is "No error" — usually 4-5 or five such questions. Second, don't overthink this and change your answers just because you think you should have more answer (E)s (or fewer). At the same time, if you only marked one of the questions 12-29 as (E), you should go back and look a little more carefully at some of the questions.

4) It gets harder

This one is pretty simple. The higher up you go, the harder it gets. The first question in "Identifying the Error" always begins with question #12. That's the real easy one. That fact should give you license just to whiz through the first few questions (you don't want to be a victim of the careless error!). Around #18 things start getting a little trickier.

By the time you hit question #25, you are looking at some real tough stuff. Knowing that a question should be tough can help you. Say you are on question #29 and right away you think, hey that answer (B) just sounds weird. Well, you are not alone. Probably 95% of high schools students will think the same thing and will get the question wrong. #29 will never be easy and remember "sounds weird", especially on the last few problems, usually means that whatever sounds weird is actually grammatically correct.

5) Don't use your ear

Sounding stuff out will only help you in two instances: idiom questions (and that's if you know the idiom) and those really easy questions at the very beginning.

For the majority of the Identifying the Error questions, make sure to apply your grammatical rules. That's the only way you'll get better.

Style Errors in Multiple-Choice Questions

For the most part, the sentences and passages that the SAT gives you in the writing sections have purely grammatical errors. For example, there may be problems in number or tense, or you'll see some run-on sentences or fragments. That is, if there are any errors at all. In both "Improving Sentences" and "Identifying Sentence Errors" questions (which make up 90% of the writing multiple choice between them), there's always one option that keeps the sentence as it is.

But there's a third option—one that involves neither a grammar error nor leaving the sentence as it is. SAT writing questions also test you on written style. Of course, this has to be style that can be objectively measured. The College Board can't have any answers that are up for debate. No talking pineapples on the SAT.

Here are some common written style errors to watch out for:

The Passive Voice

This can be one of the most difficult things to spot in SAT writing multiple choice, so it's definitely worth spending a bit of time studying. We covered this under Common Culprits earlier in the eBook. Flip back for review!

Redundancy

If some information is given twice, it's wrong.

Example: *The national championship includes thousands of contestants from the whole country.*

Something has to go. We don't need both "national" and "from the whole country." They're the same thing.

Awkwardness

I hate to be vague in that description, but there isn't a great word for these errors. They're just … awkward. Like a dog wearing socks, but not as entertaining to watch.

Example: *Being vague in that description is something that I hate to do.*

It's pretty common that awkwardness errors use what should be the main verb of a sentence as a noun instead (like in the above example), but there are lots of other ways to make awkward constructions. This kind of problem shows up a LOT in wrong answer choices, so it ends up being one of the most important parts of SAT writing. But that's good news, because this is the kind of problem you can sense without having to really analyze. It's just about what sounds natural and what doesn't.

Crack open your College Board SAT guide (or whatever prep book you may have), or spend ten minutes going through Magoosh's SAT writing practice and look for every instance of the subtler errors like these ones above. Training yourself to spot them quickly can really pay off.

Improving Paragraphs Questions

Somewhere between the second and seventh sections of your SAT, you're going to get a 25-minute writing multiple-choice section. There will only be one of these (not counting the experimental section, which might be reading, math, or writing and is unscored); the other two writing sections are the essay — section 1 — and a ten-minute improving sentences segment — section 10.

The last chunk of questions in that 25-minute multiple-choice section will be "Improving Paragraph" questions. The SAT will give you a short passage that's got a number of grammar or style errors in it, and you'll be asked to choose the best ways to correct those mistakes or add extra sentences.

How NOT to approach improving paragraphs questions

Having a whole passage in front of you makes it very tempting to start reading and analyzing the text. It's not a bad instinct — after all, you want to be reading critically while working on reading comprehension passages. But the truth is that you only need a pretty rough understanding of the author's purpose and importance of specific details for this type of question.

Most of the questions will ask you about very specific details in the passage. Spending a lot of time reading the passage in depth is not going to help you, because you know almost nothing about which of those nitty-gritty details the SAT makers are going to ask you about. Unlike SAT reading, you're not going to be asked about the author's purpose or opinions.

Skim the passage and don't worry about how to fix errors

Yes, you should read the passage before you get to the questions, but only for a pretty general understanding. If you see some writing errors while skimming, then great—there are usually quite a few, and that means you've got a good editorial eye. That'll come in handy when you're writing your essay. But you're going to get those errors put plainly in front of you in a moment, so don't labor over whether something is wrong or why it is.

Read the questions, then go back to the passage for context

Once you get to the questions, you'll know exactly what you should be scrutinizing in the passage. Then, as is true in Improving Sentences questions, you should try to find what the problem is before you look at the ways the SAT suggests fixing it.

That means you should go back to the passage with a more critical eye. Closely reread the sentence or sentences you've been asked about, and try to find what'll need to be improved, unless you're being asked to add content. In that case, you're going to have to look at the answer choices and start eliminating things that sound strange.

If you can find what went wrong in the original passage, then great — all you have to do is find the answer choice that fixes the problem and doesn't create any new ones. If not, then it's just a matter of eliminating anything you know is wrong and then following your gut.

In short

- Skim the passage for the gist and just note errors mentally
- Read the first question, then reread the part of the passage it refers to
- If you're asked to add information, then eliminate answers by considering whether they work in context with the sentences both before and after.
- If you're looking at a grammar error, predict how to fix it before looking at the answer choices
- Search through the answer choices wary of new problems they might create

Writing: The Essay

Common Misconceptions

1. Do not use "I"

Let me say it loud and clear: it is okay to use "I" in your essay. So what's with the big hullabaloo over "I"? Well, at some point you had a well-meaning English teacher who, with stern brow, wrote in all caps on the board that you should never use "I". And once, you probably tested that out, only to bear the full brunt of the teacher's wrath.

This teacher was probably from middle school, and she had a point: if you allow middle school students to use "I" in their essays, their intro paragraphs alone will have more glaring "I's", so to speak, than a circus of Cyclops.

So over time you should have learned to avoid using "I". Even now, using "I", even in the thesis statement, simply isn't necessary. However, if you feel that "I" fits naturally into your prose go ahead and use it. Just don't use it more than a few times.

2. You must always write out your examples in your thesis statement

We don't have to all the way back to middle school to find a teacher who has told you to always include your examples in your intro paragraph. You probably have a teacher today who demands this very convention. However, the SAT grader couldn't care less.

For you, not including the examples, offers the distinct advantage of saving time. You can get into your examples as you deal with each body paragraph. Just don't forget to go back to the way your teachers likes it, when you are not writing the SAT essay.

3. You cannot start a sentence with "because" or "and"

This isn't SAT specific — I just thought I'd include it, because it applies to all writing, even though you've probably been taught otherwise. And that doesn't mean I'm suggesting you begin all, or even any of your sentences, with either word (look, I just started this sentence with "And"). Just know it is 100% okay to do so, as long as you remember the following: what follows "and" or "because" must be a complete sentence. "Because I'm tired" is not a sentence. It is a subordinate clause — more commonly known as a "fragment". Just add a sentence to it: "Because I am tired, I will go to sleep."

4. All I have to do is follow the five-paragraph format

The SAT essay can definitely pretty formulaic. That fact has, unfortunately, led many to believe that they just have to knock out a few example-heavy body paragraphs, and sandwich that between a short intro and an even shorter conclusion, and voila! They have at least a "10".

The graders will not be lulled into acceptance by your cookie-cutter essay. Your essay must be well reasoned; your examples must be well chosen (and developed!); and your writing style must be varied for you to get a high score. Think of the structure as a way to keep you focused and on-topic.

Scoring: What Essay Graders Are Looking For

Instead of telling you what constitutes a "6" or a "5", or even a "0", I am going to provide a nifty link to a document the College Board has prepared. If you go to the 6th page of the doc, you'll find a nice description for each score.

This resource just provides a description, and doesn't really give a sense of what counts as an actual "6" essay, or an actual "5" essay. The best source for actual practice essays is the College Board book. Here you will find actual student essays — essays written the day of the SAT, semi-illegible cursive and all. The link above also provides some examples.

You'll notice that there is a range of styles, and not every one of the stronger essays has a cookie-cutter organization structure — though most do. You'll also note some personal examples in the higher scoring essays, showing clearly that the graders are not biased against personal examples.

Of course it is hard to grade your own essay, even if you compare it with these others. If you are taking an SAT prep class, you have someone who can give you a score, and, hopefully, helpful feedback. If not, ask friends or teachers for helpful feedback, even if they are not that familiar with SAT scoring scale.

Finally, remember that the essay takes a lot of time. While it is a noble thing to want improve your writing, so that your "8" becomes a "10", all the hours it will take to do so, will only result in a 40-point increase. Unless, you are scoring near perfect in all the other sections, you should spend time brushing up on your math skills or your grammar skills can quickly net you 40 points. I should also note that if you get every question right in the Writing section — no easy feat, of course — an essay score of "9" will still earn you a perfect 800, or at least a 790, depending on how the test is scaled.

How to Write the SAT Essay (Overview)

You only have 25 minutes to write the SAT essay. So, as soon as that clock starts ticking, you better be going full-steam on that intro. Right? Well, believe it or not, you don't want to start writing right away. You actually want to start planning.

This process is usually called brainstorming. However, I'm going to avoid using that term here because I feel it is a little too general and misleading. For one, we've been taught that brainstorming is this creative process in which we should just "dump" as many thoughts on paper as possible. You may have even been taught to put circles around your ideas and then link them together accordingly. All this not only robs precious time on the SAT essay, but can also cause you to lose focus.

Below are the steps you should take to keep you focused on the essay prompt, while generating ideas — both good and bad.

Step #1 - Choose a side

The essay prompt asks you to choose a side. In other words, it is asking you a "yes" or "no" question. At the very beginning, you should explore both sides and ask yourself: which side can I write a more persuasive essay on? Even if that side is the one you do not necessarily agree with, choose it if you feel it will make for the better essay.

But how do you decide such a thing — and what exactly do I mean by "explore both sides"? Well, let's take the following example, lifted from the College Board book:

Can knowledge be a burden rather than a benefit?

You might think, well without knowledge we couldn't have any science. At this point, consider the other side. Knowledge, though it brings with it certain benefits, is actually a burden.

Now what? Well, to ultimately "choose a side" you are going to have to follow the next step.

Step #2 - Figure out what the question is asking

So let's say you choose the "No" side. An essay in which you repeat yourself ad nauseam, "Knowledge gives us science and technology" isn't going to be too convincing.

What about the Internet? Sure, without knowledge and without the Internet we wouldn't have a lot of benefits. Or maybe the iPhone. Without knowledge we wouldn't have the iPhone.

But there is a problem here. Knowledge is being used a little too loosely in this case. No one would really argue that all knowledge is bad, scientific or otherwise. Notice the question: Can knowledge

be a burden rather than a benefit? The prompt is assuming that knowledge is a good thing. What it is asking you, however, is if there are some instances in which knowledge can be bad.

At this point taking the "knowledge is good" side doesn't really make sense. Really, in the history of humanity knowledge has always been a good thing. There has never ever been a downside?

Sure, that's a rhetorical question, which is a question in which I don't expect an answer. But the thing is, over the years, I've seen so many essays on this topic with a thesis sentence that says knowledge is good. Many describe the latest smartphone, or all the cool forms of transportation that knowledge has given us. But the essay prompt never asked that.

Step #3 – Write a thesis

Okay, so we've figured out what the prompt is asking and we've taken a side: there are times when knowledge can be a burden. Write your thesis.

Step #4 – Think of relevant examples

Now that you can always look back clearly at your thesis, it will help ground you as you come up with examples. Your examples should be specific and tie nicely together with your thesis. One way to test whether you've picked a good example is to imagine that final sentence of the body paragraph.

Let's put the above into practice by choosing a few examples for the knowledge prompt above. Below I'm going to imagine I'm in a student's head as he or she thinks up the example.

How about war? Knowledge can be a burden because it leads to war. Hmm … how does knowledge specifically lead to war? Well, that isn't too specific … what about World War II, because Hitler had too much knowledge to build weapons … nah, that is kind of dumb … hmm, wait something more specific. Like the atomic bomb. The Manhattan Project required the brightest physicists (that Oppenheimer guy) at the time to devise the atom bomb. But having that knowledge that we could kill millions of people was a burden. That's why Einstein didn't want to be a part of it, because he couldn't deal with the guilt that would come from killing thousands of civilians with one press of a button. So when knowledge can be used to harm many people that knowledge is a burden.

See, how the process was kind of messy, but ultimately yielded a valid insight? That's how it is for most people: you'll find one thing that doesn't really work but is still kind of vague (like the Hitler bit), but then you'll stumble upon something far more concrete (the Manhattan Project and Einstein). Remember; don't give up because you are not coming up with anything at first.

Notice, too, how the last sentence, with maybe small embellishment or two, can serve as a great ending for the body paragraph. Remember, that's a good test to see if you used a good example. Imagine, what that last sentence would have looked like had the essay stuck with the Hitler example: Hitler had knowledge that allowed him and his army to come up with destructive weapons, which were a burden for … uh …

Takeaway

All of the above may seem time-consuming. But that's just because I've dissected the process bit by bit (something I'll continue to do in subsequent sections). When you are actually thinking through each step, you will find you are efficient. And perhaps the most important point of all this is to remember the following: You will actually save time by planning your essay rather than plunging in full steam ahead.

Why? Well, we usually write ourselves into a hole. An example doesn't make sense, or we are just vague and keep repeating generalities like "too much knowledge can be a burden because many people can get hurt when someone knows too much". Or, worse yet, "knowledge is always a benefit because has helped people create many successful things like my iPhone."

Coming up with examples is tricky, so there is another segment that deals with that more in depth. For now, remember to spend about 5 minutes following the steps above. Once you become good at doing so, the 20 minutes you have of actually writing will be focused and fruitful.

SAT Essay: The Intro

The intro is quite possibly the most difficult paragraph of your essay to write. Though once you've learned how to structure the intro, it can be, along with the conclusion, the easiest to write.

So how exactly does one go about structuring the intro? Here is a quick recipe:

Sentence 1: Introduce the topic
Sentence 2: Elaboration sentence
Sentence 3: Pivot sentence
Sentence 4: The thesis

Short and Sweet

Before we embark on each point, keep in mind the magical rule to writing the intro: keep it short and sweet. That's right — no abstract musings or attempts to sound like a Rhodes Scholar by adding phrase after confusing phrase to your thesis.

Sample Intro

Let's take a look at an intro that conforms pretty well to the recipe above.

The topic is the following: Can knowledge be a burden rather than a benefit?

> *Knowledge is power. In agriculture, medicine, and industry, for example, knowledge has liberated us from hunger, disease, and tedious labor. Today, however, our knowledge has become so powerful that it is beyond our control. We know how to do many things, but we do not know where, when, or even whether this know-how should be used.*

Sentence 1: Introduce the topic
In a mere three words, the first sentence really packs a punch. I'm not saying you should use three words for your first sentence, but you can see that's sometimes all you really need. As long as you introduce the topic at a general level, and in just a few words, you are doing well.

Sentence 2: Elaboration sentence
This sentence is actually kind of optional, but I think it makes your intro a little smoother. Notice in the example above that the second sentence elaborates on the first. Again, the first is very general, so it is a good idea in your transition sentence to be a little more specific.

Sentence 3: Pivot sentence
This is where you really get to mix things up. For the first two sentences, you've been showing how knowledge is powerful — something nobody would disagree with. But now you want to make a claim, one that someone would potentially disagree with, and one, of course, that answers the essay question.

In other words, you are leading into your thesis, which is consistent with the position in sentence 3. And what is that position? That knowledge can sometimes be a bad thing because it has become "beyond our control".

Notice how this sentence pivots from the first two sentences, which praise knowledge. It is not that you are contradicting yourself; rather you are showing that there is truth to one side ("knowledge is power") but that in some cases (the present in which knowledge is "beyond our control") knowledge is not always a good thing.

This type of reasoning shows that you have considered both sides of an issue — instead of just pounding your fist on the table yelling "Knowledge is bad" or, if you take the flip side, "knowledge is always good".

While the body paragraphs will focus on just one side — the side your thesis argues for — the intro is a great place to show that you are thinking on the issue is not completely black or white.

Sentence 4: The thesis
At this point, it should be clear which side you are arguing for, and so our thesis should flow naturally from sentence 3. In the prompt above, I would have liked the thesis to refer back to "knowledge" and the word "burden" (though that is probably just the teacher's voice speaking). The thesis still clearly articulates the position, and it does so in a sentence that is not overly long.

Since the thesis is the most important sentence in your essay, and there are more levels of complexity in it than I describe above, I am going to spend a little more time on the thesis later.

Final Note

The four-sentence intro recipe is meant to guide you. Often, students struggle with what to write in the intro, wasting precious minutes either writing nothing at all or erasing much of what they've wrote, only to write nothing at all. Having this recipe handy will give you direction. What it will not do is automatically wow the essay graders. You'll still have to write clearly and eloquently.

I should also mention that this is just one essay template, and there are other ways to write the intro. I've found this way to be pretty effective, and one that is echoed by the very excerpts the SAT chooses. See, I actually took the above sample paragraph from the College Board blue book. You know those boxes that are above the assignment? Not only do they give you inspiration and direction on the essay, but they are also often perfectly crafted intros – ones that follow the recipe above. With a little bit of practice, you can learn to mimic these intros.

To give you an idea of what I'm talking about, I've excerpted a few below:

> Assignment*: Do material possessions make us truly happy?*
>
> *We are often reminded that acquiring and owning material possessions — money, property, jewelry, even clothing — will not lead to true happiness. While it is certainly true that material possessions alone cannot bring happiness or provide us with genuine meaning in life, there is something to be said for having material possessions. Not only can they make us comfortable, but the happiness they can provide, while it may be momentary, is still happiness.*

Comments: Notice this one has a long first sentence so it doesn't need an elaboration sentence. The second sentence is the "Pivot" sentence.

> Assignment*: Is flexibility the sign of a strong and wise leader?*
>
> *Some people emphasize that strong leaders never depart from their goal, plan, or vision and that such dedication is, in fact, a measure of their strength. Others would argue, however, that strong leaders are flexible. Strong leaders know when to admit they have made a mistake and when it is appropriate to change their goal or mission. This flexibility shows their strength and the extent of their wisdom.*

Comments: The pivot sentence comes in sentence #2. (Again, there can be slight variations on the recipe).

SAT Essay: The Body

Summary vs. Analysis

The SAT essay tests your ability to write persuasively in a short amount of time. Many students seem to forget the persuasive part; they launch into an example and begin summarizing feverishly. Napoleon attacking Russia in winter becomes more protracted than the struggle itself. By the end of the paragraph, all we know is that Napoleon made a bad decision invading in winter. What we don't know is how the example relates to the student's thesis (many times the student has no idea either).

The key is not to describe how cold Stalingrad is in winter, but to back up a thesis based on the essay prompt. If the prompt states something to the effect that others help us learn more about ourselves, then don't use the Napoleon example. It doesn't work.

If the prompt says, "It is more important to know one's limits than one's strengths" then Napoleon's winter siege on Stalingrad can make a cogent case. Notice, the 'can.' The example only works if you properly construct your paragraph.

Below are a few tips to take you from slogging through the snow of your bad example to confidently moving through it until the final resounding sentence.

Find your starting point

You do not want to begin the paragraph with "Napoleon's army could not withstand the Russian winter, and many men died."

Nor do you want to start, "In 1769, on the Mediterranean island of Corsica, Napoleon Bonaparte emerged into the lightness of the world."

Besides sounding ridiculous, the latter example takes things back a wee too far. Of course the first sentence brings us to the close of the action. Someone with little or no knowledge of the Napoleonic Wars would be lost.

Find a starting point that sets the stage for the relevant action – Napoleon invading Stalingrad in winter.

After a string of victories, Napoleon seemed unstoppable, poised to conquer all of Europe.

That's a great place to set the stage: a seemingly invincible general, clearly aware of his strengths. What could possibly stop him? Perhaps, it's the old hubris – he is overly confident, unaware of his own limitations.

Summarize relevant parts

You may not want to dive directly into your analysis. A little summary – assuming the reader isn't familiar with your example – is important:

In late summer Napoleon's army marched towards Russia, 500,000 strong. By December, it arrived in Stalingrad, already decimated from a series of battles. Undeterred, Napoleon thought the taking of the city was imminent. Yet the weeks dragged on, the temperature dropping to well below zero. Napoleon's men quickly succumbed to frostbite and disease. With the Russians, who were used to the harsh climate, hunkering down in the capital, victory was far off.

Now we know what is at stake. Napoleon can wait it out and watch his army wither to nothing, or he can make the choice and pull his army out, thereby saving at least some of his men.

Get to your analysis

Why did you choose your example? That is how does it relate to the thesis? Your answer to that question is your analysis.

Here we are holding up Napoleon as someone who was clearly aware of his strengths; he was unaware of his limits. And that's why we are using Stalingrad.

Basically, you've set the stage in your beginning sentences. Now show:

1. Any normal general – that is one who doesn't think he is invincible – would probably pull out of Russia as soon as the leaves started falling from the trees.

2. Despite an opportunity to pull back once his men began succumbing to frostbite, etc., Napoleon ordered his men to stay on, even when a victory would not be worth the devastating loses.

So Napoleon had a chance to cut his losses, but he didn't know his limits. Aha! He kept pushing his men, thinking he was invincible. Now you are providing analysis and it is clear why you chose this example.

End with a counterfactual

At this point, we are almost done. Yet, we want to end with that sense of closure, in which all the parts click into place. To do so, refer back to the thesis. After all, you want to remind your reader what you were setting to prove in the first place.

A great way to achieve the above is with the counterfactual. Now don't let that long word intimidate you (and please don't wedge counterfactual into your essay – you only sound contrived, or worse, sophomoric). To set up a counterfactual simply begin the sentence with, "Had xx…" The counterfactual describes something that could have happened but did not. On the road of life, it is the path not taken.

Had Napoleon accepted that even his formidable army could not endure the harshness of Russian winter, he would have been able to attack at a more opportune time, altering the course of a war that he would go on to lose.

Wow. That's much more convincing than ending the paragraph with

Napoleon army lost in Russian because Napoleon didn't know his limits.

Again, at the end of each example you want to impress the reader. The counterfactual is a great way to do so. On the road of essay writing, make sure you choose the path marked 'counterfactual

Part III

Now let's take a look at two examples written on the same prompt. Both examples rely on Huckleberry Finn to make their respective cases. I've chosen Huck Finn because almost every student has read the story. If not, don't worry. A strong SAT example will make sense even if you've never heard of what the writer is describing.

Make sure you remember the four points of example writing. Does each e measure up on each point? Which one is convincing?

The prompt: *"Do we need others to better understand ourselves?"*

In Mark Twain's Huckleberry Finn, Huckleberry Finn is a boy and lives in Missouri. He does many bad things with his friend Tom Sawyer. Chasing ghosts and getting into trouble. Huckleberry Finn knows this slave. His name is Jim. Jim wants to escape so Huckleberry Finn helps him. Huckleberry and Jim escape and they go on the Mississippi. They hide in a boat and many people chase them, but Huckleberry helps Jim escape. They reach an island and meet some people there. Huckleberry meets all these people and he learns about himself. Jim also helps him learn about himself because he helps Jim, even though Jim is a slave.

Critique

This paragraph is concerned mainly with summarizing the story. The writing is choppy and the summary disjointed. There are many superfluous details, "does many bad things with Tom Sawyer." Who cares? The paragraph, ostensibly, is about what Huck learns about himself by helping the slave Jim escape. But the paragraph never tells us what Huck learns about himself.

Now many may laugh at this example, thinking it egregious. However, many students feel they only have to pick an example, summarize, and connect it vaguely to the thesis, and College Board is going to be blown away. This attitude results in the above, which is, at best, a '2' out of '6.'

Okay, now let's try to do Huckleberry a little more justice:

At the beginning of Mark Twain's novel The Adventures of Huckleberry Finn, Huck lives on the streets and is considered a troublemaker. Nonetheless, a kind old woman, Widow Douglas takes Huck in and attempts to civilize him. However, it is not the widow who helps Huck improve his lot, but her slave, Jim. Huck learns that Jim wants to escape so he can return to his wife and child. Huck — despite being "uncivilized" — believes that society is treating Jim unfairly. Huck helps Jim escape and together they make their way up the Mississippi River. During their time together, Jim acts as a father figure to Huck and teaches him important lessons. Had Huck stayed with the Widow Douglas and not helped Jim escape, he would have most likely chafed at the widow's rules and been back on the streets, hardly civilized. But by helping Jim, Huck learns that he is not a no-good troublemaker but somebody who is able to do the right thing, even if doing so puts himself in harm's way. Without Jim, Huck may have never gained these valuable insights into himself.

Believe it or not, this paragraph is not perfect. The summary could have been a little shorter. At times the writer is a little vague, "…and teaches him important lessons…" Perhaps we could have known more about these lessons. The paragraph could have spent a little less time setting the stage and more time describing those incidents in which Huck learned more about himself.

Still, a paragraph doesn't have to be perfect for an essay to merit a '6.' After all, students only have 25 minutes to write the essay. And these are high school students we are talking about, not aspirants for the Pulitzer Prize. Overall, this paragraph is a strong piece of writing and is well developed. A fair amount of analysis comes at the end. There is a counterfactual or two and it ends very convincingly.

Takeaway

Look over your old SAT essays samples (assuming you have some). Which paragraph is your writing more similar to? I'm guessing it's somewhere in-between. Regardless of where it is on the score spectrum, make sure to apply the tips you learn about in these posts.

SAT Essay: The Conclusion

You can breathe a sigh of relief — the conclusion is the least important part of your essay. You are merely recapping what you already said. In other words, you don't want to say anything you haven't already said in your essay.

Can it really be that simple?

Yes and no. Yes, if you are running out of time and can barely knock out a sentence. As long as that sentence gives the essay a sense of finality (this is the conclusion after all), you should be fine — fine, in the sense that the essay grader's mind is mostly made up by the time he or she gets to your conclusion.

Of course if you have more time, add some polish to your conclusion. But don't feel like you have to write a long paragraph. Indeed, if you have that much time left, you should have spent it developing your body paragraphs.

Because it is better that you have at least a couple of sentences for your conclusion, here is recipe (much like the one I used for the Intro) that will keep things simple.

Sentence #1 – Reintroduce the topic
Sentence #2 – Reword the thesis
Sentence #3 – End with a parting thought

To show you this recipe "in action", I'm going to take an excerpt I used for the Intro.

> *Knowledge is power. In agriculture, medicine, and industry, for example, knowledge has liberated us from hunger, disease, and tedious labor. Today, however, our knowledge has become so powerful that it is beyond our control.*

So let's say you've written some nice body paragraphs showing how knowledge has run amuck (I'm imagining some pretty Internet-heavy stuff). Now it's time for your conclusion. You don't really have to bring up specific points from your body paragraphs — though you can.

To give you an example, I'm going to write a conclusion, breaking it up sentence by sentence, with the recipe above as my guide.

Sentence #1

Knowledge can liberate us, but it can also limit us.

Sentence #2

Yet, today knowledge has become so vast as to become unmanageable, and ultimately beyond our control.

Sentence #3

Unless, we can find away to once again ensure that knowledge works for us, it will inevitably work against us.

Conclusion (combining the three sentences above)

Knowledge can liberate us, but it can also limit us. Yet, today knowledge has become so vast as to become unmanageable, and ultimately beyond our control. Unless, we can find away to once again ensure that knowledge works for us, it will inevitably work against us.

It doesn't have to be amazing

This is not the most insightful, astounding, and brilliant conclusion ever written. Far from it. But it gets the job done in a quick few sentences. Most importantly, it gives the essay a clear ending. And that's the thing — you don't want to waste time on your conclusion; you want to spend those valuable minutes in the important body paragraphs. So instead of tacking on a few extra sentences to the conclusion above, I can spend that time to write more

Important note

I want to make final note: I've offered you a cookie-cutter approach. Blindly following is not going to ensure a good score. And not following it, but leavening your essay with a wealth of insights and stylistic prose, will most likely result in a great score. So if the structure of your essays doesn't mirror the recipe above, but you are writing well, then do not suddenly change the way you are writing, thinking that the SAT graders are particularly fond of this structure. However, even if you are writing well, but seem to struggle writing a convincing, organized conclusion, then the formula above can help you.

The Essay Prompt and Finding Examples

The phrase "knock yourself out" definitely applies to the SAT essay. Those plucky, indefatigable types will write essay after essay. And there's no shortage — the College Board releases four essay prompts after each test. Over the course of years, you have well over a hundred prompts to choose from.

The point of this post is not for you to find all those prompts and then go into crazy essay writing mode. Rather, by writing a number of essays you will notice recurring themes: Heroes, Success, Individuality vs. Conformity, Technology and Progress, Tradition, and more Heroes.

Knowing the range of prompts can prepare you for test day. Even better, if you know more or less what the prompt is going to be about you can prepare your examples beforehand. That's right! Instead of scrambling to come up with cogent, well thought out examples, spend those precious 25 minutes actually writing.

Wait a second … how can one example apply to all these different things?

Don't worry, I'm not asking you to put together one cookie cutter example in the quixotic hope that it'll happen to apply to the prompt. Instead, you should have trusted sources from which to draw your example from.

For instance, one of my students used Harper Lee's novel *To Kill a Mockingbird* for any essay prompt I threw at her. She would of course only use one TKMB example per essay; it was unfailingly apt. Most of the time these examples were pretty similar and all related to Scout and Atticus. Of course the College Board won't know this while they are grading your essay.

A range of sources

It is a good idea to make sure all of your sources aren't from literature. I encourage students to come up with a current event or two, and a historical event or two. The key is that you know your sources well. (To illustrate, I've appended a list on the next page).

So sit back and think of a novel you read recently (and liked), or some current event that really grabbed your attention. Then to see if it translates well to SAT essay land, the link below will take you to a page covering all the SAT prompts since 2005. As they say, "knock yourself out".

History

- FDR's leadership during the Great Depression
- Napoleon's ill-fated siege of Moscow during winter

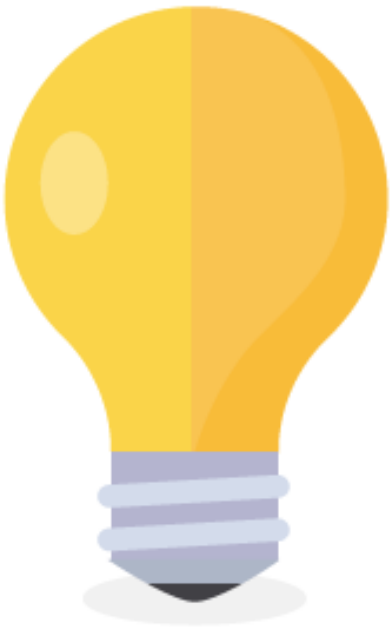
Current Events

- BP oil spill
- Japanese earthquake and tsunami

Literature

- Lord of the Flies
- Julius Caesar

Resources



Study Plans

Coming up with an SAT Study Plan (and sticking to it) is the number one way to make sure that you are ready to ace the SAT on test day. If you show up to the SAT knowing that you did your best to prepare, then no matter what happens you can't have any regrets. And that's a pretty good feeling.

So, whether you have months until you take the SAT, or you're cramming all the concepts into a short month, week, or (eek!) several days of studying, we have some well-outlined Study Schedules for you to stick to.

Check them out, and let us know what you think. :)

Happy Studying, Magooshers!

SAT Study Schedules

- 3 Day SAT Study Schedule
- 1 Week SAT Study Schedule
- 1 Month SAT Study Schedule
- 3 Month SAT Study Schedule
- 6 Month SAT Study Schedule

Frequently Asked Study Schedule Questions

- How Long Should I Study for the SAT?
- How Do I Keep My Momentum Going?
- Weeks vs. Months: How Much Time Do You Have Left Until Your SAT?

You can also access all of the study plans above from the SAT Study Schedules page on the Magoosh SAT Blog!

Prep Book Reviews

With so many SAT Prep Books on the market these days, it can be time-consuming (and very expensive) finding one or two that you like.

With this in mind, our SAT experts, Chris Lele and Lucas Fink, reviewed the most popular SAT Study Materials and wrote up reviews of their strengths and weaknesses.

We know that all SAT books are different, and what works for one student might not be the best for another. So, check out these expert reviews of the most recent SAT resources, and discover what works for you!

- The Official SAT Guide, 1st Edition (by the College Board)
- The Official SAT Guide, 2nd Edition (by The College Board)
- Cracking the SAT 2012 (by The Princeton Review)
- 11 Practice Tests for the SAT (by The Princeton Review)
- Kaplan SAT 2014 Strategies, Practice, and Review
- McGraw-Hill's SAT 2014 Edition
- Barron's SAT
- Barron's Grammar Workbook
- PWN the SAT: Math Guide
- Insider's Complete Guide to SAT Vocabulary: The Essential 500 Words

You can find links to full reviews of all of the books above (and more!) at on the Magoosh blog's Book Reviews page!

Additional Resources

Official Material

- More Practice Tests
- College Board Practice Test
- College Board Practice Questions
- Official Guide Answers and Explanations from College Board (need to create an account)

Vocabulary Resources

- Vocabulary Flashcard Tips
- Magoosh's Online Flashcards: 350+ of the most important vocabulary words
- Magoosh SAT Vocab iOS App
- Magoosh SAT Vocab Android App

Miscellaneous

- Official SAT Study Guide Book Review
- Reviews of other SAT books
- SAT Essay Prompts

Study Tips

- The SAT Format
- How to make your SAT prep stick
- Common SAT Study Mistakes
- Get Rid of Decision Fatigue
- Minimize SAT Stress

Continued on the next page…

Test-taking Tips

- Math Grid-in Questions
- Multiple Choice Strategy
- Guessing on the SAT
- Common SAT Mistakes
- Eliminate Math Answer Choices

SAT vs. ACT

- ACT vs. SAT
- ACT-SAT Score Conversion

Thanks for reading!!

- The Magoosh Team ☺

Appendix

A History of the SAT

There are few three-letter combinations that evoke such a potent mix of fear and disgust (or, in SAT-speak, trepidation and revulsion). First off, the SAT has a troubled history, one that reaches as far back as the 19th century—depending on whom you ask. Then, there is the unavoidable reality of the SAT: if you want to do anything big with your life, you are probably going to have to go to college (or come up with the next Facebook). Standing in front of you and those pearly collegiate gates is this one test that, even if you are stellar in just about every other area, threatens to sabotage your college dreams.

So why does the test even exist, and what do you have to know about it in order to cast off the metaphorical shackles (and just about any other metaphor that implies a large, nasty burden) and actually do well test day?

SAT and IQ

As for two-letter combinations this one is probably near the top of the revulsion pile. The notion of IQ first came along in the 19th century when Sir Francis Galton discovered a relationship in nature that fell into a pattern: the bell curve. In other words, he realized that when you measure something, the results tend to fall along a curve shaped like a bell.

Take height. You probably know somebody who is over six feet tall. In fact, you probably know quite a few people who fall into this category. But how many people do you know who are over six and a half feet tall? Maybe one or two. As for seeing a 7-footer in the flesh, you'd have to sit courtside at an NBA game. The same goes for the other extreme. How many males under five feet do you know?

So what Galton observed was that there are many who are average, and very few who fall under either extreme.

He applied this logic to intelligence and came up with an idea that to this day remains highly controversial: eugenics. Galton, who is much reviled today, believed that we should devise intelligence tests to figure out who the smart people were and make sure only they have babies.

While there are very few disciples of Galton today, there has been a lingering stigma around intelligence testing. This wasn't helped by the fact that in the early part of the 20th century, a Stanford psychologist named Lewis Terman devised an intelligence test, the Standford-Binet Intelligence test, which is essentially what we today call the IQ test. Giving the procedure a creepy sci-fi twist, Terman used the test to determine the smartest of the smartest (a cohort that would affectionately be dubbed the "termites"), and rounded them into one group, hoping to cultivate their intelligence and create bona fide geniuses who would go on to change the world (none actually did; though, Terman, perhaps did).

But don't worry! Terman, nor for that matter any of his "termites", did not go on to write the SAT. But what does the SAT have to do with an IQ test? Well, both test similar areas of knowledge—there are funky diagrams that you have to twist around in your head; there are tests of your knowledge base (such as vocabulary). The IQ test as we know it today is a "cousin", as one blogger put it, of the Stanford-Binet IQ test.