INTRO. CHEM-1305; REVIEW 3; SUMMER 12

1) How many atoms of cobalt equal a mass of 58.93 g? (Refer to the Periodic Table.)

A) 27 B) 6.02×10^{23} C) 58.93 D) 59 E) 1

2) How many atoms of copper equal a mass of 63.55 g? (Refer to the Periodic Table.)

A) 1 B) 29 C) 6.02×10^{23} D) 63.55 E) 64

3) What is the number of magnesium atoms that equal a mass of 24.31 amu?

A) 24
B) 1
C) 6.02×10^{23}
D) 12
E) none of the above

4) What is the number of sulfur atoms that equal a mass of 32.07 g?

A) 1
B) 32
C) 6.02×10^{23}
D) 16
E) none of the above

5) Given that Na-23 is the only natural isotope of sodium, what is the mass of one Na atom and Avogadro's number of Na atoms, respectively?

A) 23 amu and 23 g
B) 23 g and 23 amu
C) 22.99 g and 22.99 amu
D) 22.99 amu and 22.99 g
E) none of the above

6) How many moles of carbon monoxide react with 1 mol of oxygen gas according to the balanced chemical equation?

$$2\,CO(g) + O_2(g) \xrightarrow{\Delta} 2\,CO_2(g)$$

A) 1 mol
B) 2 mol
C) 3 mol
D) 4 mol
E) none of the above

7) Which of the following is equal to 1.00 mole of substance?

A) 6.02×10^{23} iodine molecules, I_2
B) 6.02×10^{23} sodium atoms, Na
C) 6.02×10^{23} sodium iodide formula units, NaI
D) all of the above
E) none of the above

8) Which of the following is equal to 1.00 mole of substance?

A) 6.02×10^{23} bromine molecules, Br_2

B) 6.02×10^{23} potassium bromide formula units, KBr

C) 6.02×10^{23} potassium atoms, K

D) all of the above

E) none of the above

9) How many moles of ammonia contain 1.51×10^{24} NH_3 molecules?

A) 3.99 mol B) 0.251 mol C) 2.51 mol D) 25.1 mol E) 0.399 mol

10) How many formula units of sodium sulfate are in 0.333 mol of Na_2SO_4?

A) 2.00×10^{24} formula units

B) 2.00×10^{23} formula units

C) 5.53×10^{25} formula units

D) 5.53×10^{21} formula units

E) 2.00×10^{21} formula units

11) How many molecules of methane gas, CH_4, have a mass equal to 3.20 g?

A) 1.20×10^{24} molecules

B) 1.93×10^{24} molecules

C) 1.20×10^{23} molecules

D) 3.01×10^{24} molecules

E) 3.01×10^{23} molecules

12) What is the mass in grams of a single molecule of oxygen, O_2?

A) 1.66×10^{-24} g

B) 5.32×10^{-23} g

C) 3.76×10^{22} g

D) 1.88×10^{22} g

E) 2.66×10^{-23} g

13) Which of the following gases occupies 22.4 L at STP?

A) 1 mol of oxygen, O_2

B) 1 mol nitrogen, N_2

C) 1 mol hydrogen, H_2

D) all of the above

E) none of the above

14) What is the mass in grams of a single atom of carbon?

A) 1.66×10^{-24} g

B) 7.22×10^{24} g

C) 2.00×10^{-23} g

D) 1.38×10^{-25} g

E) 5.02×10^{22} g

15) What is the mass of 1.20×10^{24} molecules of sulfur dioxide, SO_2?

A) 1.99 g B) 128 g C) 32.2 g D) 64.1 g E) 0.0310 g

16) What is the mass of 4.50×10^{22} atoms of gold, Au?

A) 14.7 g B) 0.0748 g C) 2640 g D) 0.0679 g E) 13.3 g

17) Which of the following gases occupies 22.4 L at STP?

A) 1 mol ammonia, NH_3
B) 1 mol carbon monoxide, CO
C) 1 mol ozone, O_3
D) all of the above
E) none of the above

18) What is the volume of 4.80×10^{22} molecules of nitrous oxide gas, N_2O, at STP?

A) 2.81 L B) 1.79 L C) 17.9 L D) 281 L E) 179 L

19) How many ethane molecules are in 22.4 liters of C_2H_6 gas at STP?

A) 1.81×10^{24} B) 1.35×10^{25} C) 1.20×10^{24} D) 2.69×10^{22} E) 6.02×10^{23}

20) What is the molar mass of mercurous nitrate, $Hg_2(NO_3)_2$?

A) 926.38 g/mol B) 262.20 g/mol C) 573.20 g/mol D) 525.20 g/mol E) 621.20 g/mol

21) What is the molar mass of ammonium dichromate, $(NH_4)_2Cr_2O_7$?

A) 252.10 g/mol B) 386.19 g/mol C) 372.18 g/mol D) 238.09 g/mol E) 260.18 g/mol

22) What is the molar mass of aspirin, $C_9H_8O_4$?

A) 244.17 g/mol B) 180.17 g/mol C) 116.08 g/mol D) 29.02 g/mol E) 252.25 g/mol

23) What is the mass of 455 mL of ethane gas, C_2H_6, at STP?

A) 0.611 g B) 2.95 g C) 10.2 g D) 0.340 g E) 65.9 g

24) What is the density of fluorine gas, F_2, at STP?

A) 22.4 g/L B) 0.589 g/L C) 1.18 g/L D) 1.70 g/L E) 0.848 g/L

25) What is the density of nitrogen gas, N_2, at STP?

A) 0.800 g/L B) 1.25 g/L C) 22.4 g/L D) 1.60 g/L E) 0.625 g/L

26) What is the volume occupied by 10.0 g of nitric oxide gas, NO, at STP?

A) 13.4 L B) 224 L C) 67.2 L D) 7.46 L E) 0.333 L

27) What is the volume of 2.75×10^{24} molecules of ammonia gas, NH_3, at STP?

A) 0.204 L B) 0.00977 L C) 4.57 L D) 102 L E) 4.90 L

28) What is the mass of 5.00 liters of oxygen gas, O_2, at STP?

A) 3.50 g B) 6.40 g C) 112 g D) 0.286 g E) 7.14 g

29) How many hydrogen molecules are in 2.75 L of H_2 gas at STP?

A) 4.90×10^{24} molecules
B) 1.66×10^{24} molecules
C) 9.77×10^{21} molecules
D) 2.19×10^{23} molecules
E) 7.39×10^{22} molecules

30) How many molecules of methane are in 0.500 mol of CH_4 gas?

A) 1.20×10^{23} molecules
B) 3.01×10^{22} molecules
C) 1.20×10^{24} molecules
D) 3.01×10^{24} molecules
E) 3.01×10^{23} molecules

31) If the density of an unknown gas is 1.96 g/L at STP, what is its molar mass?

A) 196 g/mol B) 22.4 g/mol C) 43.9 g/mol D) 19.6 g/mol E) 11.4 g/mol

32) If 1.00 L of an unknown gas at STP has a mass of 1.96 g, what is its molar mass?

A) 11.4 g/mol B) 43.9 g/mol C) 19.6 g/mol D) 196 g/mol E) 22.4 g/mol

33) The first inert gas compound to be synthesized was $XePtF_6$. What is the percentage of xenon in the compound?

A) 44.3% B) 4.31% C) 25.9% D) 29.8% E) 38.0%

34) The formula for mustard gas used in chemical warfare is $C_4H_8SCl_2$. What is the percentage of chlorine in the compound?

A) 20.16% B) 30.20% C) 44.57% D) 22.28% E) 5.08%

35) An emerald gemstone is an impure form of the mineral beryl, $Be_3Al_2Si_{16}O_{18}$. What is the percentage of silicon in the mineral?

A) 54.9% B) 3.43% C) 35.2% D) 3.30% E) 6.59%

36) If 0.500 mol of copper combines with 0.250 mol of sulfur, what is the empirical formula of the copper sulfide product?

A) Cu_2S
B) CuS_2
C) Cu_5S_5
D) CuS
E) none of the above

37) If 0.587 g of nickel metal reacts with 1.065 g of chlorine gas, what is the empirical formula of the nickel chloride product?

A) $NiCl_3$ B) Ni_2Cl_3 C) NiCl D) Ni_3Cl_2 E) $NiCl_2$

38) Which of the following represents 1 mol of diborane gas, B_2H_6?

A) 27.68 g diborane gas
B) 22.4 L diborane gas at STP
C) 6.02×10^{23} diborane gas molecules
D) all of the above
E) none of the above

39) The taste of sour milk is lactic acid. What is the molecular formula for lactic acid if the percent composition is 40.00% C, 6.71% H, 53.29% O, and the approximate molar mass is 90 g/mol?

A) CHO B) CH_2O C) CHO_2 D) C_6HO_8 E) $C_3H_6O_3$

40) Fructose is a sugar found in fruit and honey. Calculate the empirical formula for fructose given its percent composition: 40.00% C, 6.72% H, and 53.29% O.

A) CHO B) C_6HO_8 C) CHO_2 D) $C_3H_6O_3$ E) CH_2O

41) If 1.216 g of cobalt metal reacts with 0.495 g of oxygen gas, what is the empirical formula of the cobalt oxide product?

A) Co_3O_2 B) CoO_3 C) CoO_2 D) Co_2O_3 E) CoO

42) The first inert gas compound to be synthesized was $XePtF_6$. What is the percentage of fluorine in the compound?

A) 29.8% B) 25.9% C) 5.50% D) 44.3% E) 4.31%

43) Assuming similar conditions, how many liters of carbon monoxide gas react to produce 2 L of carbon dioxide gas?

$$2\,CO(g) + O_2(g) \xrightarrow{\Delta} 2\,CO_2(g)$$

A) 1 L
B) 2 L
C) 3 L
D) 4 L
E) none of the above

44) In an experiment, 5.585 g of iron metal reacts with 3.207 g of yellow sulfur. Using the conservation of mass law, predict the mass of product.

$$Fe(s) + S(s) \xrightarrow{\Delta} FeS(s)$$

A) 17.584 g B) 8.792 g C) 4.396 g D) 2.198 g E) 2.378 g

45) In an experiment, 0.520 g of chromium metal reacts with 3.807 g of iodine. Using the conservation of mass law, predict the mass of product.

$$2\ Cr(s) + 3\ I_2(s) \xrightarrow{\Delta} 2\ CrI_3(s)$$

A) 4.327 g B) 1.529 g C) 8.654 g D) 12.461 g E) 3.287 g

46) In an experiment, 0.243 g of magnesium reacts to give 0.403 g magnesium oxide. Use the conservation of mass law to predict the mass of reacting oxygen gas.

$$2\ Mg(s) + O_2(g) \xrightarrow{\Delta} 2\ MgO(s)$$

A) 1.292 g B) 0.160 g C) 0.646 g D) 0.080 g E) 0.320 g

47) In an experiment, 0.327 g of zinc metal reacts to produce 0.407 g of zinc oxide. Use the conservation of mass law to predict the mass of reacting oxygen gas.

$$2\ Zn(s) + O_2(g) \xrightarrow{\Delta} 2\ ZnO(s)$$

A) 0.734 g B) 1.468 g C) 0.080 g D) 0.040 g E) 0.160 g

48) In an experiment, 0.197 g of gold metal reacts to yield 0.303 g of gold(III) chloride. Use the conservation of mass law to predict the mass of reacting chlorine gas.

$$2\ Au(s) + 3\ Cl_2(g) \xrightarrow{\Delta} 2\ AuCl_3(s)$$

A) 0.035 g B) 0.500 g C) 0.167 g D) 0.106 g E) 0.318 g

49) How many moles of hydrogen iodide are produced from 1.00 mol of iodine?

$$\_\_H_2(g) + \_\_I_2(g) \xrightarrow{\Delta} \_\_HI(g)$$

A) 0.500 mol
B) 1.00 mol
C) 2.00 mol
D) 4.00 mol
E) none of the above

50) How many moles of water react with 5.00 mol of lithium metal?

$$\_\_Li(s) + \_\_H_2O(l) \rightarrow \_\_LiOH(aq) + \_\_H_2(g)$$

A) 2.50 mol
B) 5.00 mol
C) 10.0 mol
D) 20.0 mol
E) none of the above

51) How many moles of water react with 0.500 mol of calcium metal?

$$\_\_Ca(s) + \_\_H_2O(l) \rightarrow \_\_Ca(OH)_2(aq) + \_\_H_2(g)$$

A) 0.250 mol
B) 0.500 mol
C) 1.00 mol
D) 2.00 mol
E) none of the above

52) How many moles of hydrogen gas are produced from 0.500 mol of water?

$$\_\_Ca(s) + \_\_H_2O(l) \rightarrow \_\_Ca(OH)_2(aq) + \_\_H_2(g)$$

A) 0.250 mol
B) 0.500 mol
C) 1.00 mol
D) 2.00 mol
E) none of the above

53) What is the mass of silver metal produced from 6.35 g of copper?

$$\_\_Cu(s) + \_\_AgNO_3(aq) \rightarrow \_\_Cu(NO_3)_2(aq) + \_\_Ag(s)$$

A) 0.540 g B) 21.6 g C) 1.08 g D) 0.747 g E) 0.187 g

54) What is the mass of silver bromide (187.77 g/mol) precipitated from 2.96 g of iron(III) bromide (295.55 g/mol)?

$$\_\_FeBr_3(s) + \_\_AgNO_3(aq) \rightarrow \_\_AgBr(s) + \_\_Fe(NO_3)_3(aq)$$

A) 5.64 g B) 0.940 g C) 3.76 g D) 0.627 g E) 1.88 g

55) What is the mass of potassium iodide (166.00 g/mol) that yields 0.500 g of lead(II) iodide (461.0 g/mol) precipitate?

$$\_\_Pb(NO_3)_2(aq) + \_\_KI(s) \rightarrow \_\_PbI_2(s) + \_\_KNO_3(aq)$$

A) 0.180 g B) 0.694 g C) 0.0900 g D) 2.78 g E) 0.360 g

56) What is the volume of hydrogen gas at STP released from 2.70 g of aluminum metal and hydrochloric acid?

$$\_\_Al(s) + \_\_HCl(aq) \rightarrow \_\_AlCl_3(aq) + \_\_H_2(g)$$

A) 1.49 L B) 2.24 L C) 3.36 L D) 1.12 L E) 6.72 L

57) Considering the limiting reactant, what is the volume of NO_2 gas produced from 3.00 L of NO gas and 2.00 L of oxygen gas? (Assume constant conditions.)

$$2\,NO(g) + O_2(g) \xrightarrow{\Delta} 2\,NO_2(g)$$

A) 3.00 L
B) 2.00 L
C) 4.00 L
D) 1.00 L
E) none of the above

58) Considering the limiting reactant, what is the volume of NO gas produced from 60.0 L of ammonia gas and 50.0 L of oxygen gas? (Assume constant conditions.)

$$4\,NH_3(g) + 5\,O_2(g) \xrightarrow{\Delta} 4\,NO(g) + 6\,H_2O(g)$$

A) 50.0 L
B) 40.0 L
C) 60.0 L
D) 62.5 L
E) none of the above

59) Considering the limiting reactant, what is the volume of the excess reactant that remains after the reaction of 25.0 mL of methane gas and 75.0 mL of oxygen gas? (Assume constant conditions.)

$$CH_4(g) + 2\,O_2(g) \rightarrow CO_2(g) + 2\,H_2O(g)$$

A) 12.5 mL CH_4
B) 50.0 mL O_2
C) 25.0 mL CH_4
D) 25.0 mL O_2
E) none of the above

60) The decomposition of 1.500 g of potassium chlorate evolved 405 mL of oxygen gas. If the calculated volume of oxygen gas is 411 mL, what is the percent yield?
A) 98.5% B) 101% C) 148% D) 67.3% E) 65.7%

61) Starting with 1.56 g of salicylic acid, a student prepares 1.75 g of aspirin. If the calculated mass of aspirin is 1.88 g, what is the percent yield?
A) 107% B) 121% C) 83.0% D) 93.1% E) 89.1%

62) Starting with 1.550 g of potassium chlorate, a student releases 0.617 g of oxygen gas. If the calculated mass of oxygen gas is 0.607 g, what is the percent yield?

A) 98.4% B) 255% C) 39.8% D) 39.2% E) 102%

63) What is the mass of sodium nitrate (85.00 g/mol) that releases 2.55 L of oxygen gas at STP?

$$\_\_NaNO_3(s) \xrightarrow{\Delta} \_\_NaNO_2(s) + \_\_O_2(g)$$

A) 0.336 g B) 19.4 g C) 4.84 g D) 9.68 g E) 1.34 g

64) Which of the following is an observed property of gases?

A) Gases vary in shape and volume.
B) Gases expand infinitely.
C) Gases mix completely.
D) Gases have low density.
E) all of the above

65) Which of the following is *not* an observed property of gases?

A) Gases expand infinitely.
B) Gases compress infinitely.
C) Gases have low density.
D) Gases mix completely.
E) Gases vary in shape and volume.

66) Which of the following increases the pressure of a gas?

A) decreasing the volume
B) increasing temperature
C) increasing the number of molecules
D) all of the above
E) none of the above

67) Which of the following increases the pressure of a gas?

A) increasing the volume
B) decreasing the temperature
C) decreasing the number of gas molecules
D) all of the above
E) none of the above

68) Which of the following decreases the pressure of a gas?

A) decreasing the volume
B) increasing the temperature
C) increasing the number of gas molecules
D) all of the above
E) none of the above

69) A sample of neon gas at 1.20 atm compresses from 0.250 L to 0.125 L. If the temperature remains constant, what is the final pressure?

A) 0.600 atm
B) 2.40 atm
C) 1.00 atm
D) 1.20 atm
E) none of the above

70) A sample of argon gas at 520 mm Hg expands from 0.150 L to 0.300 L. If the temperature remains constant, what is the final pressure?

A) 520 mm Hg
B) 1040 mm Hg
C) 260 mm Hg
D) 760 mm Hg
E) none of the above

71) If the pressure of 1.50 L of hydrogen gas at 100 °C decreases from 0.500 atm to 0.115 atm, what is the final volume? Assume temperature remains constant.

A) 3.45 L B) 0.345 L C) 6.52 L D) 0.652 L E) 1.50 L

72) A 5.00 L volume of methane gas is cooled from 298 K to 149 K. If the pressure remains constant, what is the final volume?

A) 5.00 L B) 2.50 L C) 10.0 L D) 4.58 L E) 5.46 L

73) A 5.00 L volume of methane gas is cooled from 60.0 °C to 30.0 °C. If the pressure remains constant, what is the final volume?

A) 5.50 L B) 2.50 L C) 10.0 L D) 4.55 L E) 5.00 L

74) A 40.0 mL volume of ethane gas is heated from 25.0 °C to 50.0 °C. If the pressure remains constant, what is the final volume?

A) 43.4 mL B) 36.9 mL C) 80.0 mL D) 20.0 mL E) 40.0 mL

75) A sample of air at 7.50 atm is cooled from 448 K to 224 K. If the volume remains constant, what is the final pressure?

A) 6.15 atm B) 15.0 atm C) 4.57 atm D) 3.75 atm E) 12.3 atm

76) The pressure of an air sample at 190 K increases from 415 mm to 830 mm Hg. What is the final Kelvin temperature if the volume remains constant?

A) -166 K B) 380 K C) 653 K D) -42 K E) 95 K

77) If a 50.0 mL sample of xenon gas is at 0.921 atm and 27 °C, what is the volume of the gas at STP?

A) 41.9 mL B) 49.4 mL C) 54.9 mL D) 59.7 mL E) 50.6 mL

78) If 7.75 L of radon gas is at 1.55 atm and -19 °C, what is the volume at STP?

A) 8.33 L B) 12.9 L C) 5.37 L D) 11.2 L E) 4.65 L

79) A sample of carbon dioxide occupies 1.65 L at -20.0 °C and 20.0 psi. If the volume of the gas is 2.65 L at 35.0 psi, what is the Celsius temperature?

A) 551 °C B) 438 °C C) 711 °C D) 824 °C E) 984 °C

80) An atmospheric sample is composed of nitrogen, oxygen, argon, and traces of other gases. If the partial pressure of nitrogen is 587 torr, oxygen is 158 torr, and argon is 7 torr, what is the observed barometric pressure?

A) 100 torr B) 8 torr C) 1512 torr D) 752 torr E) 422 torr

81) Which of the following is true according to the kinetic theory of gases?

A) Molecules remain in fixed positions.
B) Molecules lose energy after colliding.
C) Molecules are attracted to one another.
D) all of the above
E) none of the above

82) An unknown gas occupies a volume of 1.50 L at 21 °C and 0.950 atm. If the mass is 2.01 g, what is the molar mass of the gas? (R = 0.0821 atm•L/mol•K)

A) 34.0 g/mol B) 69.1 g/mol C) 19.0 g/mol D) 30.7 g/mol E) 76.6 g/mol

83) An unknown gas occupies a volume of 1250 mL at 26 °C and 705 torr. If the mass is 2.37 g, what is the molar mass of the gas? (R = 0.0821 atm•L/mol•K)

A) 43.2 g/mol B) 14.0 g/mol C) 78.4 g/mol D) 50.2 g/mol E) 67.5 g/mol

84) If the density of an unknown gas is 1.95 g/L at STP, what is the molar mass of the gas? (R = 0.0821 atm•L/mol•K)

A) 43.7 g/mol B) 139 g/mol C) 11.4 g/mol D) 22.4 g/mol E) 23.8 g/mol

85) Which of the following is true according to the kinetic theory of gases?

A) Molecules move randomly.
B) Molecules occupy negligible volume.
C) Molecules have elastic collisions.
D) all of the above
E) none of the above

86) According to Boyle's law, what happens to a gas as the volume increases?

A) The temperature increases.
B) The temperature decreases.
C) The pressure increases.
D) The pressure decreases.
E) none of the above

87) According to Gay-Lussac's law, what happens to a gas as temperature increases?

A) The volume decreases.
B) The pressure decreases.
C) The pressure increases.
D) The volume increases.
E) none of the above

88) What is the term for a type of reaction in which a more active metal displaces a less active metal from a solution?

A) neutralization
B) combination
C) single replacement
D) decomposition
E) double replacement

89) What term refers to an insoluble solid substance that is produced from a chemical reaction in aqueous solution?
A) suspension
B) precipitate
C) condensate
D) salt
E) none of the above

90) What is the term for the value corresponding to the number of atoms in 12.01 g of carbon?
A) mole number
B) Avogadro's number
C) atomic number
D) mass number
E) none of the above

91) What is the term for a chemical formula that expresses the simplest whole number ratio of atoms of each element in a molecule?
A) elemental formula
B) molecular formula
C) atomic formula
D) empirical formula
E) none of the above

92) What is the term for the volume occupied by 1 mol of any gas at STP?
A) Avogadro's volume
B) molar volume
C) STP volume
D) standard volume
E) none of the above

93) What is the term for a temperature of 0 °C and a pressure of 1 atm?
A) atmospheric temperature and pressure
B) ideal gas temperature and pressure
C) experimental temperature and pressure
D) standard temperature and pressure
E) none of the above

94) Starting with 0.657 g of lead(II) nitrate, a student collects 0.925 g of precipitate. If the calculated mass of precipitate is 0.914 g, what is the percent yield?
A) 98.8% B) 71.0% C) 101% D) 139% E) 71.9%

95) Which of the following steps is necessary to solve a mass–mass stoichiometry problem?
A) calculate the mass of unknown substance
B) calculate the moles of known substance
C) convert moles of known to moles of unknown
D) write a balanced equation for the reaction
E) all of the above

96) Considering the limiting reactant, what is the volume of NO gas produced from 40.0 L of ammonia gas and 40.0 L of oxygen gas? (Assume constant conditions.)

$$4\,NH_3(g) + 5\,O_2(g) \xrightarrow{\Delta} 4\,NO(g) + 6\,H_2O(g)$$

A) 80.0 L
B) 32.0 L
C) 40.0 L
D) 50.0 L
E) none of the above

97) Considering the limiting reactant, what is the volume of NO gas produced from 30.0 L of nitrogen gas and 40.0 L of oxygen gas? (Assume constant conditions.)

$$N_2(g) + O_2(g) \xrightarrow{\Delta} 2\,NO(g)$$

A) 80.0 L
B) 60.0 L
C) 40.0 L
D) 30.0 L
E) none of the above

98) What is the theoretical temperature at which the kinetic energy of a gas is zero?
A) -273 K
B) absolute zero
C) -100 °C
D) -273 °F
E) none of the above

99) What is the term for the pressure exerted by the gas molecules in air?
A) gas pressure
B) partial pressure
C) vapor pressure
D) atmospheric pressure
E) none of the above

100) What principle states that equal volumes of gases, at the same temperature and pressure, contain equal numbers of molecules?
A) law of conservation of mass
B) Avogadro's theory
C) law of constant composition
D) law of combining volumes
E) none of the above

Answer Key
Testname: INTRO. CHEM-1305; REVIEW 3; S 12

1) B
2) C
3) B
4) C
5) D
6) B
7) D
8) D
9) C
10) B
11) C
12) B
13) D
14) C
15) B
16) A
17) D
18) B
19) E
20) D
21) A
22) B
23) A
24) D
25) B
26) D
27) D
28) E
29) E
30) E
31) C
32) B
33) D
34) C
35) A
36) A
37) A
38) D
39) E
40) E
41) D
42) B
43) B
44) B
45) A
46) B
47) C
48) D
49) C
50) B

51) C
52) A
53) B
54) A
55) E
56) C
57) A
58) B
59) D
60) A
61) D
62) E
63) B
64) E
65) B
66) D
67) E
68) E
69) B
70) C
71) C
72) B
73) D
74) A
75) D
76) B
77) A
78) B
79) B
80) D
81) E
82) A
83) D
84) A
85) D
86) D
87) C
88) C
89) B
90) B
91) D
92) B
93) D
94) C
95) E
96) B
97) B
98) B
99) D
100) B