General Organic and Biological Chemistry 5th edition Smith Test Bank

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General Organic and Biological Chemistry 5th Edition by Smith CH01

ANSWERS ARE LOCATED IN THE SECOND PART OF THIS DOCUMENT

TRUE/FALSE - Write 'T' if the statement is true and 'F' if the statement is false.

1) PVC plastic, which is used in pipes, is an example of a synthetic material.

1) _____

◎ true
◎ false

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Properties of Matter
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

2) Nitrogen gas (N_2) would properly be classified as a compound.

2) _____

◎ true
◎ false

Question Details
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Bloom's : 2. Understand
Difficulty : Medium
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

3) Changes in state such as melting and boiling are physical changes.

3) _____

◎ true
◎ false

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Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

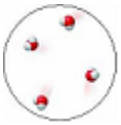
4) A compound cannot be broken down into simpler substances.

4) _____

◎ true
◎ false

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

5) The water molecules in this image are best described as being in the liquid state.



5) _____

◎ true
◎ false

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Bloom's : 2. Understand
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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6) The base unit for mass in the metric system is kilograms (kg).

6) _____

- ◎ true
- ◎ false

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

7) The base unit for volume in the metric system is liter (L).

7) _____

- ◎ true
- ◎ false

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

8) An inexact number results from a measurement or observation and contains some uncertainty.

8) _____

- ◎ true
- ◎ false

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Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

9) A zero counts as a significant figure when it occurs at the end of a number that contains a decimal point.

9) _____

- ◎ true
- ◎ false

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

10) 8 mL is larger than 8 dL.

10) _____

- ◎ true
- ◎ false

Question Details
Topic : Study of Chemistry
Bloom's : 2. Understand
Difficulty : Medium
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

General Organic and Biological Chemistry 5th edition Smith Test Bank

11) Specific gravity is a quantity that compares the density of a substance with the density of water.

11) _____

◎ true
◎ false

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

12) The specific gravity of a substance has units of g/mL.

12) _____

◎ true
◎ false

Question Details
Bloom's : 1. Remember
Topic : Study of Chemistry
Difficulty : Medium
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

13) When the liquid carbon tetrachloride (density = 1.59 g/mL) is added to water, the top layer will be the water layer.

13) _____

◎ true
◎ false

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Question Details
Topic : Study of Chemistry
Bloom's : 3. Apply
Difficulty : Medium
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

14) When a piece of magnesium (density = 1.738 g/mL) is placed in a container of liquid carbon tetrachloride (density = 1.59 g/mL), the piece of magnesium will float on top of the carbon tetrachloride.

14) _____

- ◎ true
- ◎ false

Question Details
Topic : Study of Chemistry
Bloom's : 3. Apply
Difficulty : Medium
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

15) In reading a number with a decimal point from left to right, all digits starting with the first nonzero number are significant figures.

15) _____

- ◎ true
- ◎ false

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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16) The number 900,027,300 has four significant figures.

16) _____

◎ true
◎ false

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

17) The number 900,027,300 has nine significant figures.

17) _____

◎ true
◎ false

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

18) The two conversion factors for the equality 1 in = 2.54 cm are properly shown below.

$$\frac{1\text{ in}}{2.54\text{ cm}} \quad \text{and} \quad \frac{2.54\text{ in}}{1\text{ cm}}$$

18) _____

◎ true
◎ false

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Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Dimensional Analysis
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

19) Dissolving sugar in water involves a chemical change.

19) _____

- ◎ true
- ◎ false

Question Details
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Bloom's : 3. Apply
Difficulty : Medium
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

20) Burning gasoline is a chemical change.

20) _____

- ◎ true
- ◎ false

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Bloom's : 3. Apply
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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21) One-thousand (1,000) ms is the same length of time as one (1) μs.

21) _____

◎ true
◎ false

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 4. Analyze
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

22) Assuming the numbers are measured values, when multiplying 762.85 by 15, the answer should be reported with two significant figures.

22) _____

◎ true
◎ false

Question Details
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Difficulty : Medium
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

23) When subtracting 15 from 762.85 the answer should be reported with two significant figures.

23) _____

◎ true
◎ false

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Question Details
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Difficulty : Medium
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

24) In scientific notation, a number is written as $y \times 10^{x}$, where x can be any positive or negative number or fraction.

24) _____

◎ true
◎ false

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

25) If the density of a substance is greater than 1 g/mL, the mass of a sample of this substance will be greater than the volume of the sample.

25) _____

◎ true
◎ false

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 4. Analyze
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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26) Dividing a number by 10^5 is the same as multiplying a number by 10^{-5}.

26) _____

◎ true
◎ false

Question Details
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Difficulty : Medium
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

27) The measurement 10.3 cm has more significant figures than the measurement 10.3 m.

27) _____

◎ true
◎ false

Question Details
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Difficulty : Medium
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

28) The density of olive oil is greater at 200 °C than at 25 °C.

28) _____

◎ true
◎ false

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Question Details
Topic : Study of Chemistry
Bloom's : 2. Understand
Difficulty : Medium
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

29) One Kelvin is the same size as one degree Celsius.

29) _____

- ◎ true
- ◎ false

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Temperature
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

30) The temperature 60 °C is higher than 60 °F.

30) _____

- ◎ true
- ◎ false

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Temperature
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

31) The temperature −60 °C is higher than −60 °F.

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31) _____

◎ true
◎ false

Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Temperature
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

32) The temperature 60 °C is higher than 60 K.

32) _____

◎ true
◎ false

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Temperature
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

33) Elements and compounds are both classified as pure substances.

33) _____

◎ true
◎ false

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Question Details
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Bloom's : 2. Understand
Difficulty : Medium
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

34) The terms used in conversion factors must always be exact numbers.

34) _____

◎ true
◎ false

Question Details
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Difficulty : Medium
Subtopic : Dimensional Analysis
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

35) The number 87,927,000 is larger than the number 9.7×10^6.

35) _____

◎ true
◎ false

Question Details
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Difficulty : Medium
Bloom's : 4. Analyze
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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36) The number 0.0007270 is larger than the number 5.7×10^{-3}.

36) _____

◎ true
◎ false

Question Details
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Difficulty : Medium
Bloom's : 4. Analyze
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

37) A mixture can be separated into its components by physical changes.

37) _____

◎ true
◎ false

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Bloom's : 2. Understand
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

38) For a number written in scientific notation, a negative exponent indicates the value of the number is less than 1.

38) _____

◎ true
◎ false

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Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

39) The meaning of the metric prefix *milli-* is 1000.

39) _____

- ◎ true
- ◎ false

Question Details
Topic : Study of Chemistry
Bloom's : 2. Understand
Difficulty : Medium
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

40) All of the following are examples of physical properties: color, odor, boiling point, solubility.

40) _____

- ◎ true
- ◎ false

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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41) A liquid has a definite volume and takes the shape of the container that it is in.

41) _____

◎ true
◎ false

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

42) In a measured number, the significant digits are all of the digits shown except the one estimated digit.

42) _____

◎ true
◎ false

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Accessibility : Keyboard Navigation
Subtopic : Significant Figures
Gradable : automatic

43) One milliliter is the same volume as one cubic centimeter.

43) _____

◎ true
◎ false

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Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

44) When setting up a dimensional analysis problem, in order for a unit to cancel, the same unit must appear in the numerator of one term and in the denominator of another term.

44) _____

- ◎ true
- ◎ false

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Dimensional Analysis
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

45) The temperature of two objects are measured in the laboratory. The temperature of Object A is 40ºC, and the temperature of Object B is 200K. It can be concluded that the temperature of Object B is higher than that of Object A.

45) _____

- ◎ true
- ◎ false

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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46) A beaker filled with 52 g of hydrochloric acid was carelessly spilled on the laboratory floor. Prior to the spill, the density of the acid was determined to be 1.2 g/mL. Is the student's claim that the beaker contained 43 mL of acid true or false?

46) _____

◎ true
◎ false

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Chapter : 01
Accessibility : Keyboard Navigation
Subtopic : Density Calculations
Gradable : automatic

MULTIPLE CHOICE - Choose the one alternative that best completes the statement or answers the question.

47) Which is NOT an example of a pure substance?

47) _____

A) sugar
B) air
C) aluminum foil
D) water
E) a block of dry ice (solid CO_2)

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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48) Which is an example of a physical change?

48) _____

A) the rusting of an iron nail
B) the burning of propane in a gas grill
C) baking cookies
D) polishing tarnished silver
E) melting of an ice cube in a glass of soda

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Bloom's : 2. Understand
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

49) Which of the following examples represents a chemical change?

49) _____

A) the tearing of a piece of paper
B) the melting of an ice cube
C) the burning of a candle
D) the dissolving of table salt (NaCl) in water
E) the evaporation of water from a puddle

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Question Details
Difficulty : Easy
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Bloom's : 2. Understand
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

50) An unknown solid is taken to the laboratory for analysis. Which of the following examples represents a chemical property of the unknown solid substance?

50) _____

A) The density of the solid is 1.66 g/mL.
B) The melting point of the solid is 156°C.
C) The solid is soluble in water and acetone.
D) The substance is odorless in solid form.
E) The substance produces a gas when combined with $NaHCO_3$ in water.

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Bloom's : 2. Understand
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

51) An unknown liquid is taken to the laboratory for analysis. Which of the following examples represents a physical property of the unknown liquid substance?

51) _____

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A) The liquid is hygroscopic and readily absorbs moisture from the air.
B) The liquid produces an exothermic reaction with water.
C) The liquid is highly corrosive.
D) The liquid is viscous with a slight yellow color.
E) The liquid is a powerful oxidizing agent.

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Bloom's : 2. Understand
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

52) In which state of matter are the particles close together and highly organized?

52) _____

A) solid
B) liquid
C) gas
D) all of the choices are correct.
E) none of the choices are correct.

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

53) Which description best characterizes the behavior of the particles of a liquid?

53) _____

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A) The particles are close together and highly organized.
B) The particles are close together but disorganized.
C) The particles are far apart and highly organized.
D) The particles are far apart and very disorganized.
E) None of the choices are correct.

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

54) Which state of matter does not have a definite shape or volume?

54) _____

A) solid
B) liquid
C) gas
D) More than one of the choices are correct.
E) None of the choices are correct.

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

55) Which choice describes the behavior of a solid?

55) _____

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A) A solid has a definite volume, and maintains its shape in any container.
B) A solid has a definite volume, but takes on the shape of its container.
C) A solid has no definite volume or shape.
D) A solid has no definite volume and takes the shape of its container.
E) None of the choices are correct.

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

56) Which measurement has the fewest number of significant figures?

56) _____

A) 12.80 m
B) 0.1280 m
C) 0.001280 m
D) 1280 m
E) All of the measurements have the same number of significant figures.

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

57) Which quantity is an exact number?

57) _____

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A) 3 cars
B) 1,000 m
C) 2 L
D) 453.6 g
E) 1 qt

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

58) Which quantity is an inexact number?

58) _____

A) 1 dozen eggs
B) 120 meters
C) 15 marbles
D) 5 soccer balls
E) 2 soda cans

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Accessibility : Keyboard Navigation
Gradable : automatic

59) The number 0.0035880 expressed correctly using scientific notation is _____.

59) _____

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A) 0.0035889
B) 3.5880×10^{3}
C) 3.5880×10^{-3}
D) 3.5880×10^{-4}
E) 3.588×10^{-3}

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

60) The measurement 78,005,760 expressed correctly using scientific notation is _____.

60) _____

A) 7.8005760×10^{7}
B) 7.8005760×10^{-7}
C) 7.8×10^{7}
D) 7.800576×10^{-7}
E) 7.800576×10^{7}

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

61) When 4.870×10^{-3} is correctly converted to its standard form the number becomes _____.

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61) _____

A) 4870
B) 4870.
C) 0.00487
D) 0.004870
E) 0.0004870

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

62) Which number is the largest?

62) _____

A) 4.38×10^{3}
B) 4.38×10^{2}
C) 4.38×10^{-3}
D) 4.38×10^{-2}
E) 438

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Bloom's : 3. Apply
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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63) Which number is the smallest?

63) _____

A) 4.38×10^{3}
B) 4.38×10^{2}
C) 4.38×10^{-3}
D) 4.38×10^{-2}
E) 438

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

64) When 0.022189 is correctly rounded to two significant figures the number becomes _____.

64) _____

A) 0.02
B) 0.022
C) 22
D) 0.023
E) 0.0222

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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65) When 5.5490×10^8 is correctly rounded to three significant figures the number becomes _____.

65) _____

A) 5.55
B) 5.55×10^8
C) 555
D) 554
E) 5.54×10^8

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

66) Which number contains four significant figures?

66) _____

A) 3.908
B) 0.780
C) 0.0085
D) 1700
E) Two or more of the numbers contain four significant figures.

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Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

67) Carry out the following calculation and report the answer using the proper number of significant figures: 38.251 + 73.1

67) _____

A) 111
B) 111.3
C) 111.4
D) 111.35
E) 111.351

Question Details
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Bloom's : 3. Apply
Difficulty : Medium
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

68) Carry out the following calculation and report the answer using the proper number of significant figures:
549.101 + 8.12 + 95.0076 – 651.9

68) _____

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A) 3.286
B) 0.3286
C) 0.33
D) 0.3
E) 1268.1

Question Details
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Difficulty : Medium
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

69) Carry out the following calculation and report the answer using the proper number of significant figures:
38.251 × 73.1

69) _____

A) 2796.1481
B) 2796.15
C) 2796.1
D) 2796
E) 2.80×10^3

Question Details
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Bloom's : 3. Apply
Difficulty : Medium
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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70) Carry out the following calculation and report the answer using the proper number of significant figures:

$$\frac{16.75\ \text{ft}}{0.54\ \text{s}}$$

70) _____

A) 31.0185 ft/s
B) 31.01 ft/s
C) 31.02 ft/s
D) 31.0 ft/s
E) 31 ft/s

Question Details
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

71) The base unit for mass in the metric system is the _____.

71) _____

A) pound
B) liter
C) centigram
D) ton
E) gram

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Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Accessibility : Keyboard Navigation
Subtopic : Metric System
Gradable : automatic

72) The base unit for volume in the metric system is the _____.

72) _____

A) quart
B) liter
C) pint
D) gallon
E) cup

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Accessibility : Keyboard Navigation
Subtopic : Metric System
Gradable : automatic

73) What is the correct metric relationship between milliliters and microliters?

73) _____

A) 1 milliliter = 1 microliter
B) 1,000 milliliters = 1 microliter
C) 1 milliliter = 1,000 microliters
D) 1,000,000 milliliters = 1 microliter
E) 1 milliliter = 1,000,000 microliters

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Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 4. Analyze
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

74) Which metric relationship is INCORRECT?

74) _____

A) 1 milligram = 1,000 grams
B) 1 dL = 100 mL
C) 1 km = 1,000 m
D) 100 cg = 1 g
E) 1 liter = 1,000,000 microliters

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 4. Analyze
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

75) Which is the proper conversion factor for converting a mass expressed in pounds (lbs) to the same mass expressed in grams (g)?

75) _____

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A) $\frac{1\ g}{454\ lbs}$

B) $\frac{454\ g}{1\ lb}$

C) $\frac{454\ lbs}{1\ g}$

D) $\frac{1\ lb}{454\ g}$

E) None of the conversion factors provided are correct.

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Subtopic : Dimensional Analysis
Bloom's : 4. Analyze
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

76) Which length is the longest?

76) _____

A) 12 m
B) 12,000 mm
C) 12,000 µm
D) 12,000 cm
E) 0.0012 km

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Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 4. Analyze
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

77) What is the height (in meters) of patient who measures 6.0 feet tall?

77) _____

A) 0.55 m
B) 1.3 m
C) 1.8 m
D) 19 m
E) 2.0 x 10^2 m

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Subtopic : Dimensional Analysis
Bloom's : 4. Analyze
Subtopic : Measurements (Metric and SI Units)
Accessibility : Keyboard Navigation
Gradable : automatic

78) A single dose of medication has a mass of 450mg. What is this mass in grams?

78) _____

A) 0.00045 g
B) 0.0045 g
C) 0.045 g
D) 0.45 g
E) 4.5 g

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Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Accessibility : Keyboard Navigation
Gradable : automatic

79) A syringe has a volume of 5.0 mL. What is this volume in deciliters?

79) _____

A) 0.00050 dL
B) 0.0050 dL
C) 0.050 dL
D) 0.50 dL
E) 50. dL

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

80) What is the mass in kilograms of an individual who weighs 197 lbs.?

80) _____

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A) 197 kg
B) 8.95 kg
C) 89.5 kg
D) 90 kg
E) 433 kg

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

81) If a balloon has a volume of 21.6 cups, what is the volume of this balloon expressed in L?

81) _____

A) 86.4 L
B) 81.51 L
C) 5.72 L
D) 5.108 L
E) 5.11 L

Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

82) Which volume is equivalent to 225 mL?

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82) _____

A) 2.25×10^{5} µL
B) 2.25×10^{2} µL
C) 2.25 L
D) 2.25×10^{-5} µL
E) 0.225 µL

Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

83) If a package of nuts weighs 41.3 oz, what is the mass of the package expressed in milligrams?

83) _____

A) 1.17 mg
B) 1.17×10^{3} mg
C) 1.17×10^{6} mg
D) 117mg
E) 3.00×10^{5} mg

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Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

84) If a tree is 89.5 cm tall, what is the tree's height expressed in yards?

84) _____

A) 0.979 yd
B) 6.31 yd
C) 18.9 yd
D) 35.2 yd
E) 227 yd

Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

85) If the density of a 5.25g blood sample is 1.05 g/mL, what is the volume of the sample, reported in mL?

85) _____

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A) 5 mL
B) 5.5 mL
C) 5.00 mL
D) 0.20 mL
E) 2.5 mL

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

86) A 15.0 mL urine sample from a dehydrated patient has a density of 1.019 g/mL. What is the mass of the sample, reported in mg?

86) _____

A) 15.3 mg
B) 67.9 mg
C) 6.79×10^{-5} mg
D) 1.53×10^{4} mg
E) 1.47×10^{4} mg

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Subtopic : Density and Specific Gravity
Accessibility : Keyboard Navigation
Gradable : automatic

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87) If honey has a density of 1.36 g/mL, what is the mass of 1.25 qt, reported in kilograms?

87) _____

A) 1.60 kg
B) 1.6×10^3 kg
C) 0.974 kg
D) 974 kg
E) 1.80 kg

Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

88) If a piece of rock has a volume of 0.73 L and a mass of 1524 g, what is the density of the rock in g/mL?

88) _____

A) 2.1×10^3 g/mL
B) 0.48 g/mL
C) 4.8×10^{-4} g/mL
D) 2.1 g/mL
E) 2.088 g/mL

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Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

89) A urine sample has a density of 1.010 g/mL. What is its specific gravity?

89) _____

A) 0.0404
B) 1.003
C) 24.75
D) 25.25
E) 1.010

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Subtopic : Density and Specific Gravity
Accessibility : Keyboard Navigation
Gradable : automatic

90) What is the mass (in grams) of 12 cm^3 of silver if it has a specific gravity of 10.49?

90) _____

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A) 0.87 g
B) 130 g
C) 1.1 g
D) 110 g
E) 11 g

Question Details
Bloom's : 1. Remember
Topic : Study of Chemistry
Difficulty : Hard
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Subtopic : Density and Specific Gravity
Accessibility : Keyboard Navigation
Gradable : automatic

91) A hiker with hypothermia has a body temperature of 82 °F. What is his body temperature in °C?

91) _____

A) 14 °C
B) 28 °C
C) 31 °C
D) 50 °C
E) 180 °C

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Temperature
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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92) On an autumn day in Washington, DC, the outdoor temperature was 21 °C. What was this outdoor temperature in °F?

92) _____

A) 44 °F
B) 57 °F
C) 69 °F
D) 70 °F
E) 85 °F

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Temperature
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

93) An oven is set for a temperature of 298 °F. What is the oven temperature in K?

93) _____

A) 166 K
B) 421 K
C) 148 K
D) 571 K
E) 439 K

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Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Temperature
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

94) Salmonella, a genus of Gram-negative bacteria, can be killed at 344K. What is this temperature in °F?

94) _____

A) 160 °F
B) 71 °F
C) 617 °F
D) 651 °F
E) 173 °F

Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Temperature
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

95) Which of the following temperatures is the hottest?

95) _____

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A) 100 °C
B) 100 °F
C) 100 K
D) All would feel equally warm.

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 4. Analyze
Subtopic : Temperature
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

96) The recommended dietary allowance for calcium for teenage children is 1,300 mg per day. If a typical 8.0-fl oz glass of reduced-fat milk contains 298 mg of calcium, how many fluid ounces of milk does a teenager need to drink to get the entire recommended amount of calcium from this milk?

96) _____

A) 4.4 fl oz
B) 1.8 fl oz
C) 3.5 fl oz
D) 35 fl oz
E) 32 fl oz

Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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97) What is the density of a sample of rubbing alcohol if it has a specific gravity of 0.789?

97) _____

A) 1.27 g/mL
B) 0.789 g/mL
C) 1.00 g/mL
D) 0.895 g/mL
E) 1.58 g/mL

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

98) Which of the following conversions is correct and expresses the answer using the proper number of significant figures?

98) _____

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A) $3.779 \text{ lb} \times \frac{454 \text{ g}}{1 \text{ lb}} \times \frac{1{,}000 \text{ mg}}{1 \text{ g}} = 1.7 \times 10^{6} \text{ mg}$

B) $553 \text{ dL} \times \frac{1 \text{ L}}{10 \text{ dL}} \times \frac{10^{3} \text{ mL}}{1 \text{ L}} = 5.5 \times 10^{4} \text{ mL}$

C) $623 \text{ nm} \times \frac{1 \text{ m}}{10^{9} \text{ nm}} \times \frac{39.4 \text{ in}}{1 \text{ m}} = 2.45 \times 10^{-5} \text{ in}$

D) $623 \text{ nm} \times \frac{1 \text{ m}}{10^{6} \text{ nm}} \times \frac{39.4 \text{ in}}{1 \text{ m}} = 2.45 \times 10^{-2} \text{ in}$

Question Details
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

99) What is the mass in grams of 85.32 mL of blood plasma with a density of 1.03 g/mL?

99) _____

A) 85.32 g
B) 82.83 g
C) 82.8 g
D) 87.88 g
E) 87.9 g

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Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

100) If a 185-lb patient is prescribed 145 mg of the cholesterol lowering drug Tricor daily, what dosage is the patient receiving in mg/kg of his body weight?

100) _____

A) 0.784 mg/kg
B) 1.28 mg/kg
C) 0.356 mg/kg
D) 1.72 mg/kg
E) 0.580 mg/kg

Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

101) The estimated average daily requirement of folic acid for pregnant females is 520 micrograms. Which accurately expresses this value?

101) _____

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A) 520 mg
B) 520 Mg
C) 520 mG
D) 520 µg
E) 520 µG

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

102) For a person between the ages of 10 and 29, the normal range of blood triglycerides is 53 × 10^4 mg/dL. What is the correct interpretation of the units in this measurement?

102) _____

A) milligrams times deciliter
B) micrograms per deciliter
C) megagrams per deciliter
D) milligrams per deciliter
E) micrograms times deciliter

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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103) A patient's urine sample has a density of 1.02 g/mL. If 1250 mL of urine was excreted by the patient in one day, what mass of urine was eliminated?

103) _____

A) 1.28 kg
B) 1225 g
C) 1275 g
D) 128 g
E) 12.3 g

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

104) The density of human urine is normally between 1.003 and 1.030 g/mL, and is often used as a diagnostic tool. If a 25.00 mL sample of urine from a patient has a mass of 26.875 g, how does the density of the urine sample compare to the normal range?

104) _____

A) The density of the sample is lower than the normal range.
B) The density of the sample is greater than the normal range.
C) The density of the sample is within the normal range.
D) There is insufficient information to make a comparison.

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Question Details
Topic : Study of Chemistry
Bloom's : 2. Understand
Difficulty : Medium
Subtopic : Dimensional Analysis
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

105) Which volume has the most uncertainty associated with the measurement?

105) _____

A) 10 mL
B) 10.0 mL
C) 10.00 mL
D) 10.000 mL
E) All have the same degree of uncertainty.

Question Details
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Difficulty : Medium
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

106) Air has a density of 0.001226 g/mL. What volume of air would have a mass of 1.0 lb?

106) _____

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A) 2.7 mL
B) 815.6 mL
C) 37 mL
D) 3.7×10^2 L
E) 8.2×10^2 mL

Question Details
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

107) A beaker contains 145.675 mL of a saline solution. If 24.2 mL of the saline solution are removed from the beaker, what volume of solution remains?

107) _____

A) 121.475 mL
B) 121.47 mL
C) 121.5 mL
D) 121.4 mL
E) 121 mL

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 4. Analyze
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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108) The prescribed dosage of amoxicillin for the treatment of a moderate case of bronchitis in an average adult is 500mg/8 hours. If the patient is told to continue the mediation for a total of 6 days, what is the total mass of amoxicillin taken, expressed in grams?

108) _____

A) 2 g
B) 1 g
C) 0.4 g
D) 4 g
E) 9 g

Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

109) Diphenhydramine is the active ingredient in many common over-the-counter antihistamine medications. The packaging indicates that the typical adult dosage is 50mg of diphenhydramine every 6 hours. Each tablet contains 25mg of drug. How many tablets will be taken over the course of 4 days?

109) _____

A) 32 tablets
B) 24 tablets
C) 16 tablets
D) 8 tablets
E) 4 tablets

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Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

110) How many of the following objects will float in a beaker of water at 4°C when water's density is at a maximum of 1.00 g/mL?
Object A with a density of 0.950 g/mL
Object B with a density of 1.00 g/mL
Object C with a density of 13.2 g/mL
Object D with a density of 2.10 g/mL

110) _____

A) 0
B) 1
C) 2
D) 3
E) 4

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

111) During a laboratory experiment, an object with a density of 1.2 g/cm^3 is placed into a graduated cylinder containing a liquid with a density of 1.8 g/cm^3. Which of the following statements best characterizes the observations and conclusions from the laboratory?

111) _____

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A) The object is less dense than the liquid, so the object will sink in the liquid.
B) The object is less dense than the liquid, so the object will float in the liquid.
C) The object is more dense than the liquid, so the object will sink in the liquid.
D) The object is more dense than the liquid, so the object will float in the liquid.
E) The object's density and the liquid's density are similar, so the object will suspend in the liquid.

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 4. Analyze
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

112) If you have equal masses of two different substances (A and B), and the density of A is twice the density of B, then the volume of A is _____ the volume of B.

112) _____

A) one-quarter
B) one-half
C) the same as
D) two times
E) four times

Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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FILL IN THE BLANK. Write the word or phrase that best completes each statement or answers the question.

113) A _____ change converts one material to another.

113) _____

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

114) The measurement 0.030500 m has _____ significant figures.

114) _____

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

115) The measurement 4008 L has _____ significant figures.

115) _____

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Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

116) The measurement 32.0 m has _____ significant figures.

116) _____

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

117) The measurement 0.0002 g has _____ significant figures.

117) _____

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

118) The measurement 9.0×10^3 km has _____ significant figures.

118) _____

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Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Scientific Notation and Significant Figures
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

119) When the measurement 340,942 s is rounded to two significant figures, the value is properly reported as _____.

119) _____

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Bloom's : 3. Apply
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

120) To use conversion factors to solve a problem, set up the problem with any unwanted unit in the numerator of one term and the _____ of another term, so that unwanted units cancel.

120) _____

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Dimensional Analysis
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

121) Every measurement is composed of a number and a _____.

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121) _____

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

122) A small banana contains 323 mg of the nutrient potassium. You would need to eat approximately _____ small bananas in one day to obtain the recommended daily intake of 3.5 g of potassium.

122) _____

Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

123) The measurement 5342 nm is the same length as _____ cm, written in scientific notation.

123) _____

Question Details
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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124) When crude oil leaks into the ocean from an oil tanker, the crude oil floats, because it is _____ dense than water.

124) _____

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Subtopic : Density and Specific Gravity
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

125) Ultraviolet light converts oxygen gas (O_2) into ozone (O_3) in the stratosphere. This is an example of a _____ change.

125) _____

Question Details
Difficulty : Easy
Bloom's : 1. Remember
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

126) The Recommended Dietary Allowance (RDA) for iron for females is 18 mg. If each vitamin supplement contains 0.006 g of iron, _____ vitamin supplements must be taken per day to meet the RDA for iron.

126) _____

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Question Details
Topic : Study of Chemistry
Subtopic : Scientific Notation and Significant Figures
Difficulty : Medium
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Subtopic : Measurements (Metric and SI Units)
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

127) The state of matter of substance that has a definite volume and takes the shape of the container that it is in is classified as a _____.

127) _____

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Subtopic : Classification and States of Matter
Bloom's : 2. Understand
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

128) The classic dessert, pound cake, got its name from the fact that the original recipe called for one pound of butter, one pound of sugar, and one pound of flour. An amateur baker wanted to test to see if the new recipe did indeed require 1 lb of sugar, so he took the mass of the 2 cups of sugar that the recipe required and found that it had a mass of 454 g. The old recipe and the new recipe _____ require the same mass of sugar. (do/ do not)

128) _____

Question Details
Difficulty : Easy
Topic : Study of Chemistry
Bloom's : 2. Understand
Chapter : 01
Accessibility : Keyboard Navigation
Subtopic : Measurements (English and Metric Units)
Gradable : automatic

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129) The jeweler insists that the necklace in the display case is made of pure gold. Pure gold has a density of about 19 g/mL. If the mass of the necklace is 8.0g and the volume is 0.48 mL. The density of the necklace is _____, so the necklace _____ pure gold. (is, is not)

129) _____

Question Details
Topic : Study of Chemistry
Difficulty : Medium
Bloom's : 5. Evaluate
Chapter : 01
Accessibility : Keyboard Navigation
Subtopic : Density Calculations
Gradable : automatic

130) A patient with a severe upper respiratory infection is prescribed Cephalexin, an antibiotic. The pharmacy dispenses a total mass of 5250 mg of the antibiotic in capsule form, enough for exactly 7 days of treatment. The patient is told to take 3 capsules per day. The mass of Cephalexin in each capsule is _____.

130) _____

Question Details
Topic : Study of Chemistry
Difficulty : Hard
Bloom's : 5. Evaluate
Subtopic : Dimensional Analysis
Chapter : 01
Accessibility : Keyboard Navigation
Gradable : automatic

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Answer Key

Test name: CH01

1) TRUE
2) FALSE
3) TRUE
4) FALSE
5) FALSE
6) FALSE
7) TRUE
8) TRUE
9) TRUE
10) FALSE
11) TRUE
12) FALSE
13) TRUE
14) FALSE
15) TRUE
16) FALSE
17) FALSE
18) FALSE
19) FALSE
20) TRUE
21) FALSE
22) TRUE
23) FALSE
24) FALSE
25) TRUE

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26) TRUE
27) FALSE
28) FALSE
29) TRUE
30) TRUE
31) FALSE
32) TRUE
33) TRUE
34) FALSE
35) TRUE
36) FALSE
37) TRUE
38) TRUE
39) FALSE
40) TRUE
41) TRUE
42) FALSE
43) TRUE
44) TRUE
45) FALSE
46) TRUE
47) B
48) E
49) C
50) E
51) D
52) A
53) B
54) C
55) A

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56) D
57) A
58) B
59) C
60) E
61) D
62) A
63) C
64) B
65) B
66) A
67) C
68) D
69) E
70) E
71) E
72) B
73) C
74) A
75) B
76) D
77) C
78) D
79) C
80) C
81) E
82) A
83) C
84) A
85) C

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86) D
87) A
88) D
89) E
90) B
91) B
92) D
93) B
94) A
95) A
96) D
97) B
98) C
99) E
100) D
101) D
102) D
103) A
104) B
105) A
106) D
107) C
108) E
109) A
110) B
111) B
112) B
113) chemical
114) 5
115) four

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116) three
117) 1
118) two
119) 3.4 x 105
120) denominator
121) unit
122) 11
123) 5.342 x 10-4
124) less
125) chemical
126) 3
127) liquid
128) do
129) [17 g/mL, is not]
130) 250. mg

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