

***Introductory Chemistry 9th edition Zumdahl Test
Bank***

SKU: 9781337399425-TEST-BANK

Chapter 02— Measurements and Calculations

1. Express 1230000 in scientific notation.

- a. 3.62×10^{-8}
- b. 1.23×10^{-6}
- c. 1.23×10^6
- d. 123×10^6
- e. 123×10^4

ANSWER: c

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: scientific notation | significant figures

OTHER: general chemistry

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2. Express 30529000 in scientific notation.

- a. 3×10^7
- b. 3.0529×10^7
- c. 305×10^7
- d. 30529×10^3
- e. 305290×10^7

ANSWER: b

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: scientific notation | significant figures

OTHER: general chemistry

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3. Write 8,323 in standard scientific notation.

- a. 8323
- b. 8.323×10^{-3}
- c. 832.3×10^1

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d. 8.323×1000

e. 8.323×10^3

ANSWER: e

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: scientific notation | significant figures

OTHER: general chemistry

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4. The number 0.001 expressed in exponential notation is

a. 1×10^3

b. 1×10^4

c. 1×10^{-3}

d. 1×10^{-4}

e. none of these

ANSWER: c

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: scientific notation | significant figures

OTHER: general chemistry

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5. The number 0.00288 expressed in exponential notation is

a. 2.88×10^3

b. 2.88×10^{-2}

c. 288×10^3

d. 2.88×10^2

e. 2.88×10^{-3}

ANSWER: e

POINTS: 1

DIFFICULTY: easy

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QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: scientific notation | significant figures

OTHER: general chemistry

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6. Express the number 178414 in scientific notation.

a. 1.78414×10^{-5}

b. 1.78414×10^5

c. 1.78×10^5

d. 178.414×10^3

e. 1.8×10^{-5}

ANSWER: b

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: scientific notation | significant figures

OTHER: general chemistry

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7. The number 200,000 expressed in scientific notation is

a. 2.0×10^5

b. 2.0×10^{-5}

c. 20×10^4

d. 200×10^3

e. 2×10^5

ANSWER: e

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: scientific notation | significant figures

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8. Express the number 0.00382 in scientific notation.

- a. 3.82×10^{-3}
- b. 3.82×10^3
- c. 0.382×10^{-3}
- d. 382×10^{-5}
- e. none of these

ANSWER: a
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: scientific notation | significant figures
OTHER: general chemistry
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9. 2.7 kilograms contain this many grams.

- a. 2.7×10^3
- b. 2.7×10^2
- c. 2.7×10^1
- d. 2.7×10^{-2}
- e. 2.7×10^{-3}

ANSWER: a
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
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10. How many milliliters are in 0.063 L?

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- a. 0.63 mL
- b. 6.3 mL
- c. 6.3×10^2 mL
- d. 6.3×10^1 mL
- e. 6.3×10^3 mL

ANSWER: d
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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11. The measurement 3.8×10^4 g could also be written as _____.

- a. 3.8 g
- b. 3.8 mg
- c. 3.8 pg
- d. 3.8 kg
- e. 3.8 dg

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
TOPICS: Problem Solving and Dimensional Analysis
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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12. How many millimeters are in 5.62×10^2 centimeters?

- a. 5.62×10^2 mm
- b. 5.62×10^1 mm
- c. 5.62×10^3 mm
- d. 5.62 mm
- e. 5.62×10^{-2} mm

ANSWER: c

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POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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13. Convert: 7.7 mm = _____ km.

- a. 7.7×10^{-6}
- b. 7.7×10^{-3}
- c. 7.7×10^3
- d. 7.7×10^6
- e. 7.7×10^2

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: Problem Solving and Dimensional Analysis
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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14. Convert: 91.1 L = _____ mL.

- a. 9.11×10^3 mL
- b. 9.11×10^4 mL
- c. 9.11×10^{-1} mL
- d. 9.11×10^{-2} mL
- e. 9.11 mL

ANSWER: b
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement

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KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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15. Convert: $8.21 \times 10^2 \text{ g} = \underline{\hspace{2cm}}$ kg.

- a. $8.21 \times 10^5 \text{ kg}$
- b. 8.21 kg
- c. 0.821 kg
- d. $8.21 \times 10^4 \text{ kg}$
- e. 0.0821 kg

ANSWER: c
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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16. Convert: 87.9 cm = m.

- a. $8.79 \times 10^3 \text{ m}$
- b. $8.79 \times 10^4 \text{ m}$
- c. 0.0879 m
- d. 0.879 m
- e. 8.79 m

ANSWER: d
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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17. 4.1 milliseconds is equal to how many seconds?

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- a. 4.1×10^3 s
- b. 4.1×10^2 s
- c. 4.1×10^{-3} s
- d. 4.1×10^{-2} s
- e. 0.41 s

ANSWER: c
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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18. The fundamental unit of length in the metric system is the _____.

- a. kilometer
- b. meter
- c. centimeter
- d. gram
- e. milliliter

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: Units
KEYWORDS: base unit | si unit
OTHER: general chemistry
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19. The number of milligrams in 1.0 kg is

- a. 1.0×10^3 mg
- b. 1.0×10^6 mg
- c. 1.0×10^{-3} mg
- d. 1.0×10^{-6} mg
- e. 1.0×10^2 mg

ANSWER: b

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POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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20. The SI prefix that corresponds to a factor of 10^{-3} is

- a. milli
- b. centi
- c. deci
- d. kilo
- e. none of these

ANSWER: a
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: prefixes | si unit
OTHER: general chemistry
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21. Which metric prefix is used to designate 1/10?

- a. d
- b. c
- c. m
- d. M
- e. k

ANSWER: a
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: prefixes | si unit

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OTHER: general chemistry
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22. The number of milliliters in 0.0914 liter is

- a. 9.14×10^{-5} mL
- b. 91.4 mL
- c. 9.14 mL
- d. 914 mL
- e. 9.14×10^3 mL

ANSWER: b
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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23. Which of the following is an SI unit for expressing the mass of a block of gold?

- a. m
- b. g
- c. L
- d. pound

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
TOPICS: Units
KEYWORDS: base unit | si unit
OTHER: general chemistry
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24. A cubic centimeter (cm^3) is equivalent to what other metric volume unit?

- a. milliliter
- b. liter
- c. deciliter

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d. centimeter

e. millimeter

ANSWER: a

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: False

TOPICS: general concepts
measurement

KEYWORDS: si unit | volume

OTHER: general chemistry

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25. Convert: 443.2 mm = _____ m.

a. 4.432×10^5 m

b. 4.432×10^4 m

c. 4.432 m

d. 44.32 m

e. 0.4432 m

ANSWER: e

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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26. The number of cubic centimeters (cm^3) in 63.7 mL is _____.

a. 0.0637 cm^3

b. 6.37 cm^3

c. 63.7 cm^3

d. None of these

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

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TOPICS: Problem Solving and Dimensional Analysis
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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27. Using the rules of significant figures, calculate the following:

$$30 + 4.207$$

- a. 30
- b. 35
- c. 34.21
- d. 34.207
- e. 34

ANSWER: a
RATIONALE: 30
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: rounding | significant figures
OTHER: general chemistry
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28. Using the rules of significant figures, calculate the following:

$$15.9743 - 3.02$$

- a. 12.95
- b. 13
- c. 12.9543
- d. 12.954
- e. 12

ANSWER: a
RATIONALE: 12.95
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: rounding | significant figures
OTHER: general chemistry

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29. Calculate the following using the rules of significant figures:

$$12.67 + 13.005 =$$

- a. 25.675
- b. 25
- c. 20
- d. 25.68
- e. 26

ANSWER: d

POINTS: 1

DIFFICULTY: Easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: False

TOPICS: Significant Figures

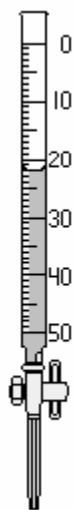
KEYWORDS: rounding | significant figures

OTHER: general chemistry

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30. Using zero as your reference point, how much liquid has left the buret? Use the correct number of significant figures.



- a. 20 mL
- b. 22 mL
- c. 22.0 mL
- d. 38 mL
- e. 38.0 mL

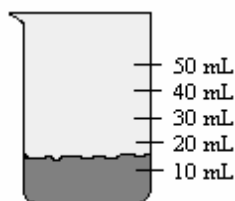
ANSWER: c

POINTS: 1

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DIFFICULTY: moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: general concepts
measurement
KEYWORDS: rounding | significant figures
OTHER: general chemistry
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31. 20.0 mL of water from a graduated cylinder is added to a beaker of water as shown below. What is the new volume of water in the beaker?



- a. 40 mL
- b. 40.0 mL
- c. 35 mL
- d. 35.0 mL
- e. 25.0 mL

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: Uncertainty in Measurements
KEYWORDS: rounding | significant figures
OTHER: general chemistry
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32. How many significant figures are in the number 1.89×10^3 ?

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

ANSWER: c
POINTS: 1
DIFFICULTY: easy

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QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: False

TOPICS: general concepts
measurement

KEYWORDS: scientific notation | significant figures

OTHER: general chemistry

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33. The number 3.00315 rounded to four significant figures is

- a. 3
- b. 3.004
- c. 3.000
- d. 3.315
- e. none of these

ANSWER: a

RATIONALE: 3

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: rounding | significant figures

OTHER: general chemistry

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34. How many significant figures are in the number 60.02×10^5 ?

- a. 2
- b. 3
- c. 4
- d. 5
- e. None of these

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: False

TOPICS: Significant Figures

KEYWORDS: scientific notation | significant figures

OTHER: general chemistry

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35. The number 14.809 rounded to three significant figures is _____.

- a. 15.0
- b. 14.9
- c. 14.81
- d. 14.809
- e. 14.8

ANSWER: e

POINTS: 1

DIFFICULTY: Moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: False

TOPICS: Significant Figures

KEYWORDS: rounding | significant figures

OTHER: general chemistry

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36. Round 23,456 to four significant figures.

ANSWER: 23,460

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Subjective Short Answer

HAS VARIABLES: False

TOPICS: general concepts
measurement

KEYWORDS: rounding | significant figures

OTHER: general chemistry

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37. Round 0.0004583 to three significant figures and express it in scientific notation.

ANSWER: 4.58×10^{-4}

POINTS: 1

DIFFICULTY: Moderate

QUESTION TYPE: Subjective Short Answer

HAS VARIABLES: False

TOPICS: Significant Figures

KEYWORDS: scientific notation | significant figures

OTHER: general chemistry

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38. How many significant figures are in the number 34.00500?

- a. 3
- b. 4
- c. 5
- d. 6
- e. 7

ANSWER: e

POINTS: 1

DIFFICULTY: Moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: False

TOPICS: Significant Figures

KEYWORDS: significant figures

OTHER: general chemistry

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39. How many significant figures are in the number 1000.0?

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

ANSWER: e

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: False

TOPICS: general concepts
measurement

KEYWORDS: significant figures

OTHER: general chemistry

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40. How many significant figures are in the measurement 12.3004 g?

- a. 6
- b. 5
- c. 4
- d. 3
- e. 2

ANSWER: a

POINTS: 1

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DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: Significant Figures
KEYWORDS: significant figures
OTHER: general chemistry
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41. How many significant figures are in the number 1.20×10^3 ?

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

ANSWER: c
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: Significant Figures
KEYWORDS: scientific notation | significant figures
OTHER: general chemistry
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42. In the sum of $54.34 + 45.66$, the number of significant figures is

- a. 2
- b. 3
- c. 4
- d. 5
- e. 6

ANSWER: d
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: general concepts
measurement
KEYWORDS: rounding | significant figures
OTHER: general chemistry
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43. How many significant figures are in the number 3.400?

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

ANSWER: d

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: False

TOPICS: general concepts
measurement

KEYWORDS: significant figures

OTHER: general chemistry

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44. The number 243.306 rounded off to five significant figures is _____.

- a. 243.31
- b. 243.36
- c. 243.30
- d. 243.00
- e. None of these

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: False

TOPICS: Significant Figures

KEYWORDS: rounding | significant figures

OTHER: general chemistry

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45. A student finds that the weight of an empty beaker is 16.600 g. She places a solid in the beaker to give a combined mass of 16.629 g. To how many significant figures is the mass of the solid known?

- a. 2
- b. 3
- c. 1
- d. 5
- e. 4

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ANSWER: a
POINTS: 1
DIFFICULTY: moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: rounding | significant figures
OTHER: general chemistry
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46. What is the result of the following multiplication expressed in scientific notation to the correct number of significant figures?

$$(5.45 \times 10^3)(6.0 \times 10^{-3})$$

- a. 3.3×10^1
- b. 3.27×10^1
- c. 3.2×10^{-1}
- d. 3×10^1
- e. 3.27×10^1

ANSWER: a
POINTS: 1
DIFFICULTY: moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: scientific notation | significant figures
OTHER: general chemistry
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47. How many significant figures are in the number 19.8030?

- a. 6
- b. 5
- c. 4
- d. 3
- e. 2

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: Significant Figures

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KEYWORDS: significant figures
OTHER: general chemistry
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48. How many significant figures are in the result of the calculation below?

$$(4.321/2.8) \times (6.9234 \times 10^5)$$

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: Significant Figures
KEYWORDS: rounding | significant figures
OTHER: general chemistry
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49. The result of the following calculation has how many significant figures?

$$(0.4333 \text{ J/g } ^\circ\text{C}) (33.12^\circ\text{C} - 31.12^\circ\text{C})(412.1 \text{ g})$$

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

ANSWER: c
POINTS: 1
DIFFICULTY: moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: general concepts
measurement
KEYWORDS: rounding | significant figures
OTHER: general chemistry
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50. How many significant figures are in the number 4.00700×10^{13} ?

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- a. 2
- b. 4
- c. 5
- d. 6
- e. none of these

ANSWER: d
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: general concepts
measurement
KEYWORDS: scientific notation | significant figures
OTHER: general chemistry
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51. How many significant figures are in the number 0.02020×10^{15} ?

- a. 3
- b. 4
- c. 5
- d. 6
- e. 19

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: Significant Figures
KEYWORDS: scientific notation | significant figures
OTHER: general chemistry
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52. How many significant figures are in the measurement 0.2010 g?

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

ANSWER: d
POINTS: 1

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DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: general concepts
measurement
KEYWORDS: significant figures
OTHER: general chemistry
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53. The product of $0.1400 \times 6.02 \times 10^{23}$ will have how many significant figures?

- a. 2
- b. 3
- c. 23
- d. 10^{23}
- e. 7

ANSWER: b
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: general concepts
measurement
KEYWORDS: rounding | significant figures
OTHER: general chemistry
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54. How many significant figures are there in the result of the calculation below?

4.1/7.464

- a. 7
- b. 4
- c. 3
- d. 2
- e. 1

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: Significant Figures
KEYWORDS: rounding | significant figures
OTHER: general chemistry

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55. How many significant figures are in the number 0.00204?

- a. 3
- b. 5
- c. 2
- d. 6
- e. 4

ANSWER: a

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: False

TOPICS: general concepts
measurement

KEYWORDS: significant figures

OTHER: general chemistry

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56. How many significant figures are in the number 123.00015?

- a. 5
- b. 6
- c. 7
- d. 8
- e. 9

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: False

TOPICS: Significant Figures

KEYWORDS: significant figures

OTHER: general chemistry

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57. How many significant figures are in the number 0.0040090?

- a. 8
- b. 7
- c. 6
- d. 5

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e. 4

ANSWER: d
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: general concepts
measurement
KEYWORDS: significant figures
OTHER: general chemistry
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58. How many significant figures are in the number 10.050?

- a. 1
- b. 2
- c. 3
- d. 4
- e. 5

ANSWER: e
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: Significant Figures
KEYWORDS: significant figures
OTHER: general chemistry
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59. Write the number 345.626 in scientific notation.

- a. 345.626
- b. 3.45626×10^{-2}
- c. 34.5626×10^2
- d. 0.345626×10^3
- e. 3.45626×10^2

ANSWER: e
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: Scientific Notation

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KEYWORDS: scientific notation | significant figures
OTHER: general chemistry
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60. Write the number 0.0005081 in scientific notation.

- a. 5.081×10^4
- b. 0.5081×10^{-3}
- c. 5.081×10^{-4}
- d. 50.81×10^{-5}
- e. none of these

ANSWER: c
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: scientific notation | significant figures
OTHER: general chemistry
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61. Convert 798.9 m to decimeters.

- a. 7.989×10^4 dm
- b. 79.89 dm
- c. 7.989 dm
- d. 7.989×10^3 dm
- e. none of these

ANSWER: d
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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62. Convert 683.8 L to milliliters.

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- a. 0.6838 mL
- b. 6.838 mL
- c. 683.8 mL
- d. 6.838×10^3 mL
- e. 6.838×10^5 mL

ANSWER: e

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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63. Convert 409.3 qt to milliliters (1 L = 1.060 qt).

- a. 4.093×10^5 mL
- b. 3.861×10^5 mL
- c. 4.339×10^5 mL
- d. 386.1 mL
- e. none of these

ANSWER: b

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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64. Convert 5.87 kg to pounds (1 lb = 453.6 g).

- a. 12.9 lb
- b. 1.29×10^{-2} lb
- c. 2662.63×10^3 lb
- d. 2.66 lb
- e. 2.66×10^6 lb

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ANSWER: a
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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65. Convert 212113.0 mm to kilometers.

- a. 2.121130 km
- b. 0.2121130 km
- c. 212.1130 km
- d. 2121.130 km
- e. 3.167180×10^{11} km

ANSWER: b
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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66. Convert 0.5200 L to centiliters.

- a. 0.005200 cL
- b. 520.0 cL
- c. 52.00 cL
- d. 0.05200 cL
- e. 5.200 cL

ANSWER: c
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts

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measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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67. Convert 786.5 mi to kilometers (1 m = 1.094 yd; 1 mi = 1760. yd).

a. 4.889×10^{-4} km

b. 1.265×10^6 km

c. 860.4 km

d. 4.469×10^{-1} km

e. 1.265×10^3 km

ANSWER: e

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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68. Convert 22.9 cm to inches (2.54 cm = 1 in).

a. 58.2 in

b. 5.82 in

c. 9.02 in

d. 90.2 in

e. 0.902 in

ANSWER: c

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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69. Convert 0.084 ft^3 to liters ($28.32 \text{ L} = 1 \text{ ft}^3$).

- a. $3.0 \times 10^{-3} \text{ L}$
- b. 0.24 L
- c. 24 L
- d. $2.4 \times 10^{-2} \text{ L}$
- e. 2.4 L

ANSWER: e

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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70. Convert 7.25 kg to pounds ($1 \text{ kg} = 2.205 \text{ lb}$).

- a. 16.0 lb
- b. 3.29 lb
- c. 1.60 lb
- d. 32.9 lb
- e. 0.329 lb

ANSWER: a

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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71. Convert: $0.742 \text{ mm} = \underline{\hspace{1cm}} \text{ m}$.

- a. 7.42×10^{-4}
- b. 7.42×10^{-3}
- c. 7.42×10^2
- d. 74.2

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e. 7.42×10^{-5}

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: Problem Solving and Dimensional Analysis
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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72. Convert: 0.00581 cm = _____ mm.

- a. 5.81 mm
- b. 5.81×10^{-2} mm
- c. 0.581 mm
- d. 5.81×10^{-4} mm
- e. 5.81×10^{-5} mm

ANSWER: b
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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73. Convert: 9.32 qt = _____ mL.

- a. 9.88 mL
- b. 9.88×10^3 mL
- c. 8.79×10^3 mL
- d. 8.79 mL
- e. 1.64×10^4 mL

ANSWER: c
POINTS: 1
DIFFICULTY: moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True

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TOPICS: general concepts
measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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74. Convert: 23.7 cc = _____ mL.

- a. 237 mL
- b. 2.37×10^3 mL
- c. 2.37 mL
- d. 23.7 mL
- e. 0.237 mL

ANSWER: d

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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75. Convert: 7.82 mL = _____ qt.

- a. 8.29 mL
- b. 7.38 mL
- c. 7.38×10^3 mL
- d. 1.38×10^4 mL
- e. 8.29×10^{-3} mL

ANSWER: e

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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76. Convert: 844.7 qt = _____ mL.

- a. 8.447×10^5 mL
- b. 895.4 mL
- c. 8.954×10^{-1} mL
- d. 1.487×10^6 mL
- e. 7.969×10^5 mL

ANSWER: e

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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77. Convert: 3.45 in = _____ mm.

- a. 87.6 mm
- b. 8.76 mm
- c. 1.358 mm
- d. 0.88 mm
- e. 876 mm

ANSWER: a

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: conversion factor | factor label method

OTHER: general chemistry

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78. Convert: 97.0 mg = _____ lb.

- a. 2.14×10^2 lb
- b. 9.70×10^{-5} lb
- c. 4.40×10^7 lb
- d. 4.28×10^{-4} lb

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e. 2.14×10^{-4} lb

ANSWER: e
POINTS: 1
DIFFICULTY: moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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79. Convert: $82.7^{\circ}\text{F} = \underline{\hspace{1cm}}$ K.

- a. 298.8
- b. 351.5
- c. -194.5
- d. -247.2
- e. 471.9

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: Temperature Conversions: An Approach to Problem Solving
KEYWORDS: Fahrenheit scale | Kelvin
OTHER: general chemistry
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80. Convert: $81.5^{\circ}\text{C} = \underline{\hspace{1cm}}$ $^{\circ}\text{F}$.

- a. 178.7°F
- b. 146.7°F
- c. 114.7°F
- d. 77.3°F
- e. 13.3°F

ANSWER: a
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement

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KEYWORDS: Celsius scale | Fahrenheit scale
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81. Convert: 793.3 K = _____ °C.

- a. 1066.3°C
- b. 520.3°C
- c. 1459.9°C
- d. 472.7°C
- e. 440.7°C

ANSWER: b
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: Celsius scale | Kelvin
OTHER: general chemistry
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82. Convert: 17.5°F = _____ °C.

- a. 27.50°C
- b. -26.10°C
- c. -8.06°C
- d. 89.10°C
- e. 290.5°C

ANSWER: c
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: Celsius scale | Fahrenheit scale
OTHER: general chemistry
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83. 483.7 K equals

- a. 210.7°F

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- b. 870.7°C
- c. 756.7°F
- d. 210.7°C
- e. 756.7°C

ANSWER: d
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: Celsius scale | Kelvin
OTHER: general chemistry
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84. What Kelvin temperature reading equals 69.9°F?

- a. -251.9 K
- b. 341.2 K
- c. -204.8 K
- d. 329.6 K
- e. 294.1 K

ANSWER: e
POINTS: 1
DIFFICULTY: moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: Fahrenheit scale | Kelvin
OTHER: general chemistry
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85. Convert: -22.2 °F = _____ °C.

- a. -30.1
- b. 5.4
- c. -97.6
- d. 17.6
- e. 250.8

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate

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QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: Temperature Conversions: An Approach to Problem Solving

KEYWORDS: Celsius scale | Fahrenheit scale

OTHER: general chemistry

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86. Convert: $-38.0^{\circ}\text{C} = \underline{\hspace{2cm}}^{\circ}\text{F}$.

a. -100.4°F

b. -36.4°F

c. 10.9°F

d. -53.1°F

e. -68.4°F

ANSWER: b

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: Celsius scale | Fahrenheit scale

OTHER: general chemistry

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87. 254.6°F is equivalent to

a. 159.2°C

b. 123.7°C

c. 400.7°C

d. 515.9°C

e. 141.4°C

ANSWER: b

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multiple Choice

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: Celsius scale | Fahrenheit scale

OTHER: general chemistry

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88. Convert: $18.7^{\circ}\text{F} = \underline{\hspace{2cm}}$ $^{\circ}\text{C}$.

- a. 28.17°C
- b. -23.94°C
- c. 91.26°C
- d. -7.39°C
- e. 10.39°C

ANSWER: d

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: Celsius scale | Fahrenheit scale

OTHER: general chemistry

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89. What is the Celsius equivalent of 948.2 K ?

- a. 1221.2°C
- b. 1738.8°C
- c. 509.0°C
- d. 1706.8°C
- e. 675.2°C

ANSWER: e

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: Celsius scale | Kelvin

OTHER: general chemistry

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90. Convert: $-28.0^{\circ}\text{C} = \underline{\hspace{2cm}}$ $^{\circ}\text{F}$.

- a. -82.4°F
- b. 16.4°F
- c. -18.4°F
- d. -47.6°F
- e. -50.4°F

ANSWER: c

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POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: Celsius scale | Fahrenheit scale
OTHER: general chemistry
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91. Convert: $80.6^{\circ}\text{C} = \underline{\hspace{2cm}} \text{ K}$.

- a. -192.4 K
- b. 192.4 K
- c. 145.1 K
- d. 353.6 K
- e. 27.0 K

ANSWER: d
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: Celsius scale | Kelvin
OTHER: general chemistry
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92. Cesium melts at 302 K and boils at 944 K . What would be the physical state of cesium at 25°C ?

ANSWER: Solid
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Subjective Short Answer
HAS VARIABLES: False
TOPICS: Temperature Conversions: An Approach to Problem Solving
KEYWORDS: Kelvin | temperature
OTHER: general chemistry
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93. If 1.000 kg equals 2.205 lb , what is the mass in pounds of a human who weighs 92.43 kg ?

- a. 203.8 lb
- b. 41.92 lb

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- c. 183.8 lb
- d. 94.64 lb
- e. none of these

ANSWER: a
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: conversion factor | factor label method
OTHER: general chemistry
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94. The Celsius equivalent of 195.7 K is

- a. 468.7°C
- b. 195.7°C
- c. 295.7°C
- d. -77.3°C
- e. 384.3°C

ANSWER: d
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: Celsius scale | Kelvin
OTHER: general chemistry
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95. 44.8°C is equal to

- a. 112.6°F
- b. 48.6°F
- c. -228.2 K
- d. 7.1°F
- e. none of these

ANSWER: a
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multiple Choice

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HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: Celsius scale | Fahrenheit scale

OTHER: general chemistry

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96. Convert: $19.5^{\circ}\text{C} = \underline{\hspace{2cm}}$ $^{\circ}\text{F}$.

- a. 3.1°F
- b. 42.8°F
- c. -21.2°F
- d. 35.1°F
- e. 67.1°F

ANSWER: e

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: Celsius scale | Fahrenheit scale

OTHER: general chemistry

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97. Convert: $-60.7^{\circ}\text{C} = \underline{\hspace{2cm}}$ K.

- a. -333.7 K
- b. 333.7 K
- c. 212.3 K
- d. 109.3 K
- e. 33.7 K

ANSWER: c

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: Celsius scale | Kelvin

OTHER: general chemistry

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98. Density is an example of a _____.

- a. chemical property
- b. physical property
- c. qualitative property
- d. chemical change
- e. physical change

ANSWER: b

POINTS: 1

DIFFICULTY: Moderate

QUESTION TYPE: Multiple Choice

HAS VARIABLES: False

TOPICS: Density

KEYWORDS: physical property

OTHER: general chemistry

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99. Water has a density of 1.0 g/mL. Which of these objects will float in water?

Object I: mass = 50.0 g; volume = 53.1 mL

Object II: mass = 71.7 g; volume = 51.4 mL

Object III: mass = 100.0 g; volume = 50.0 mL

- a. I only
- b. I, III
- c. II only
- d. II, III
- e. III only

ANSWER: a

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
matter

KEYWORDS: physical property

OTHER: general chemistry

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100. Calculate the mass of a rectangular solid that has a density of 2.95 g/cm^3 and measures 2.50 cm by 1.80 cm by 3.00 cm.

- a. 4.58 g
- b. 39.8 g
- c. 7.38 g

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d. 21.5 g

e. 42.8 g

ANSWER: b

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: dimensional analysis | factor label method

OTHER: general chemistry

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101. Find the volume of an object that has a density of 3.14 g/mL and a mass of 74.0 g.

a. 23.6 mL

b. 4.24×10^{-2} mL

c. 232 mL

d. 2.36×10^{-2} mL

e. 2.32×10^5 mL

ANSWER: a

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: dimensional analysis | factor label method

OTHER: general chemistry

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102. An experiment requires 24.5 g of ethyl alcohol (density = 0.790 g/mL). What volume of ethyl alcohol, in liters, is required?

a. 1.94×10^{-2} L

b. 3.22×10^{-5} L

c. 19.4×10^4 L

d. 3.10×10^{-2} L

e. 19.4 L

ANSWER: d

POINTS: 1

DIFFICULTY: Moderate

Chapter 02— Measurements and Calculations

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: Density

KEYWORDS: dimensional analysis | factor label method

OTHER: general chemistry

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103. At 20°C the density of mercury is 13.6 g/cm³. What is the mass of 39.8 mL of mercury at 20°C?

- a. 5.41×10^2 g
- b. 2.93 g
- c. 1.00 g/mL
- d. 0.342 g
- e. none of these

ANSWER: a

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: dimensional analysis | factor label method

OTHER: general chemistry

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104. If a 100.-g sample of platinum metal has a volume of 5 mL, what is the density of platinum in g/cm³?

- a. 21.4 g/cm³
- b. 2.14 g/cm³
- c. 0.0467 g/cm³
- d. 467 g/cm³
- e. none of these

ANSWER: a

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: dimensional analysis | factor label method

OTHER: general chemistry

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105. An experiment requires 52.5 mL of ethyl alcohol. If the density of ethyl alcohol is 0.790 g/cm^3 , what is the mass of 52.5 mL of ethyl alcohol?

- a. 66.5 g
- b. 15.0 g
- c. 41.5 g
- d. $4.15 \times 10^{-2} \text{ g}$
- e. None of these

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: Density

KEYWORDS: dimensional analysis | factor label method

OTHER: general chemistry

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106. If a 100.-g sample of a metal has a volume of 3.47 mL, what is the density of the metal?

- a. 28.8 g/mL
- b. 2.88 g/mL
- c. 0.0347 g/mL
- d. 3 g/mL
- e. none of these

ANSWER: a

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: dimensional analysis | factor label method

OTHER: general chemistry

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107. The volume (in milliliters) occupied by 49.7 g of mercury (density = 13.6 g/mL) is

- a. 676 mL
- b. 3.65 mL
- c. 0.274 mL
- d. 36.1 mL

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e. none of these

ANSWER: b
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: dimensional analysis | factor label method
OTHER: general chemistry
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108. The density of copper is 8.92 g/mL. The mass of a piece of copper that has a volume of 10.7 mL is

- a. 0.954 g
- b. 954 g
- c. 95.4 g
- d. 9.54×10^{-2} g
- e. none of these

ANSWER: c
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: dipole-dipole forces | factor label method
OTHER: general chemistry
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109. The density of gold is 19.3 g/mL. What is the volume of a gold nugget that weighs 79.3 g?

- a. 1.53×10^3 mL
- b. 4.11 mL
- c. 0.243 mL
- d. 60.0 mL
- e. none of these

ANSWER: b
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts

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measurement

KEYWORDS: dimensional analysis | factor label method

OTHER: general chemistry

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110. Aluminum has a density of 2.70 g/cm^3 . What is the mass of a rectangular block of aluminum measuring 11.1 cm by 22.2 cm by 34.6 cm?

- a. 183 kg
- b. $3.16 \times 10^3 \text{ kg}$
- c. 0.317 kg
- d. 23.0 kg
- e. none of these

ANSWER: d

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multiple Choice

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: dimensional analysis | factor label method

OTHER: general chemistry

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111. An object has a mass of 40.1 g and occupies a volume of 9.86 mL. The density of this object is

- a. 395 g/mL
- b. 0.246 g/mL
- c. 4.07 g/mL
- d. too low to measure
- e. 40.1 g/mL

ANSWER: c

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: density | si unit

OTHER: general chemistry

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112. What volume would be occupied by a piece of aluminum (density = 2.70 g/mL) weighing 67.7 g?

- a. 183 mL
- b. 3.99×10^{-2} mL
- c. 25.1 mL
- d. 2.51 mL
- e. none of these

ANSWER: c

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: dimensional analysis | factor label method

OTHER: general chemistry

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113. A graduated cylinder contains 20.0 mL of water. An irregularly shaped object is placed in the cylinder, and the water level rises to the 31.2-mL mark. If the object has a mass of 63.1 g, what is its density?

- a. 5.63 g/mL
- b. 0.177 g/mL
- c. 2.02 g/mL
- d. 3.16 g/mL
- e. none of these

ANSWER: a

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: density | si unit

OTHER: general chemistry

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114. A piece of an unknown metal weighs 477.7 g and occupies a volume of 72.2 mL. What is the density of this metal?

- a. 3.45×10^4 g/mL
- b. 6.62 g/mL
- c. 0.151 g/mL
- d. 66.2 g/mL

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e. none of these

ANSWER: b
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: density | si unit
OTHER: general chemistry
DATE CREATED: 12/23/2013 2:41 PM
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115. A sample of an unknown metal (density = 4.920 g/mL) weighs 740.4 g. What is the volume of this piece of metal?

- a. 3.643×10^3 mL
- b. 6.645×10^{-3} mL
- c. 150.5 mL
- d. 1.505×10^5 mL
- e. none of these

ANSWER: c
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: dimensional analysis | factor label method
OTHER: general chemistry
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116. The density of an object that has a mass of 7.86 g and occupies a volume of 1.20 mL equals

- a. 7.86 g/mL
- b. 1.20 g/mL
- c. 6.55 g/mL
- d. 0.15 g/mL
- e. 9.43 g/mL

ANSWER: c
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True

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TOPICS: general concepts
measurement
KEYWORDS: density | si unit
OTHER: general chemistry
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117. An empty graduated cylinder weighs 55.26 g. When filled with 60.5 mL of an unknown liquid, it weighs 92.39 g. The density of the unknown liquid is

- a. 37.13 g/mL
- b. 60.5 g/mL
- c. 0.614 g/mL
- d. 1.63 g/mL
- e. 2.25×10^3 g/mL

ANSWER: c
POINTS: 1
DIFFICULTY: moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: density | si unit
OTHER: general chemistry
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118. A solid object with a volume of 5.62 mL weighs 108 g. Would this object float or sink in mercury? Explain. (Density of Hg = 13.6 g/mL)

ANSWER: The object would sink. Density (d) of the object = 19.2 g/mL. $d(\text{object}) > d(\text{Hg})$.
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Subjective Short Answer
HAS VARIABLES: False
TOPICS: Density
KEYWORDS: density | si unit
OTHER: general chemistry
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119. Copper has a density of 8.96 g/cm³. If a cylinder of copper weighing 20.92 g is dropped into a graduated cylinder containing 20.00 mL of water, what will be the new water level?

- a. 2.33 mL
- b. 0.428 mL

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- c. 17.67 mL
- d. 22.33 mL
- e. 31.29 mL

ANSWER: d
POINTS: 1
DIFFICULTY: moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: dimensional analysis | factor label method
OTHER: general chemistry
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120. A chemist needs 28.7 g of bromine for an experiment. What volume of bromine should the chemist use?
(Density of bromine = 3.12 g/cm^3)

- a. 0.109 mL
- b. 28.7 mL
- c. 89.5 mL
- d. 25.6 mL
- e. 9.20 mL

ANSWER: e
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: Density
KEYWORDS: dimensional analysis | factor label method
OTHER: general chemistry
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121. A chunk of sulfur has a volume of 5.95 cm^3 . What is the mass of this sulfur?
(Density of sulfur = 2.07 g/cm^3 .)

- a. 0.348 g
- b. 5.95 g
- c. 2.87 g
- d. 3.88 g
- e. 12.3 g

ANSWER: e
POINTS: 1

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DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: dimensional analysis | factor label method
OTHER: general chemistry
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122. One side of a backyard fence measures 336 inches in length. How many feet does this represent?

- a. 28.0 ft
- b. 4032. ft
- c. 0.0357 ft
- d. 132. ft
- e. 853. ft

ANSWER: a
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: length | si unit
OTHER: general chemistry
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123. A golfer putted a golf ball 7.5 ft across a green. How many inches does this represent?

- a. 0.63 in
- b. 3.0 in
- c. 90. in
- d. 1.6 in
- e. 0.34 in

ANSWER: c
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: length | si unit
OTHER: general chemistry

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124. How many centimeters are in 15.6 inches?

- a. 6.14 cm
- b. 0.163 cm
- c. 18.1 cm
- d. 39.6 cm
- e. 187. cm

ANSWER: d

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: length | si unit

OTHER: general chemistry

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125. An iron sample has a mass of 2.71 lb. What is the mass of this sample in grams?

- a. 5.97 g
- b. 1.23×10^3 g
- c. 1.23×10^{-3} g
- d. 5.97×10^3 g
- e. 2.71×10^3 g

ANSWER: b

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: mass | si unit

OTHER: general chemistry

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126. A dining room table measures 4.0 feet in length. How many inches does this represent?

- a. 0.33 in
- b. 3.0 in

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- c. 16. in
- d. 1.6 in
- e. 48. in

ANSWER: e
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: length | si unit
OTHER: general chemistry
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127. How many cups are in a 51-oz pitcher of lemonade? (8 fluid oz = 1 cup)
- a. 408 cups
 - b. 0.16 cup
 - c. 59 cups
 - d. 43 cups
 - e. 6.4 cups

ANSWER: e
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: si unit | volume
OTHER: general chemistry
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128. Perform the following conversion: 5.87 m/s = _____ km/h
- a. 21.1
 - b. 0.352
 - c. 1.63
 - d. 613
 - e. 170

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)

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HAS VARIABLES: True

TOPICS: Problem Solving and Dimensional Analysis

KEYWORDS: si unit | time

OTHER: general chemistry

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129. Perform the following conversion: $6.69 \text{ m/s} = \underline{\hspace{2cm}} \text{ mi/h}$

- a. 0.334 mi/h
- b. 15.0 mi/h
- c. 241 mi/h
- d. 249 mi/h
- e. 13.4 mi/h

ANSWER: b

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: si unit | time

OTHER: general chemistry

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130. Baking soda and vinegar are mixed in a balloon. A gas is produced, and the balloon expands to a volume of 4.70 L. What is the volume of the balloon in cm^3 ?

- a. $4.70 \times 10^3 \text{ cm}^3$
- b. 47.0 cm^3
- c. 0.470 cm^3
- d. $4.70 \times 10^{-3} \text{ cm}^3$
- e. $4.70 \times 10^2 \text{ cm}^3$

ANSWER: a

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: si unit | volume

OTHER: general chemistry

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131. An object is 140.7 inches in height. Express this height in centimeters.

- a. 55.39 cm
- b. 0.01805 cm
- c. 11.73 cm
- d. 357.4 cm
- e. 143.2 cm

ANSWER: d

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: length | si unit

OTHER: general chemistry

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132. An object is 158.6 inches in height. Express this height in feet.

- a. 0.07566 ft
- b. 1903 ft
- c. 62.44 ft
- d. 402.8 ft
- e. 13.22 ft

ANSWER: e

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: length | si unit

OTHER: general chemistry

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133. A toy measures 38.7 cm in length. How many inches does this represent?

- a. 15.2 in
- b. 98.3 in
- c. 0.0656 in
- d. 3.23 in

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e. 464 in

ANSWER: a
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: length | si unit
OTHER: general chemistry
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134. A runner jogs 4.5 miles every morning. How many kilometers does this represent?

- a. 2.8 km
- b. 7.2 km
- c. 54 km
- d. 0.36 km
- e. 2.9 km

ANSWER: b
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: length | si unit
OTHER: general chemistry
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135. How many quarts are in a 14.0-gal cooler of fruit punch? (1 gal = 4 qt)

- a. 3.50 qt
- b. 0.286 qt
- c. 18.0 qt
- d. 10.0 qt
- e. 56.0 qt

ANSWER: e
POINTS: 1
DIFFICULTY: easy
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: general concepts

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measurement

KEYWORDS: si unit | volume

OTHER: general chemistry

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136. A car tire has a pressure of 48 psi (pounds per square inch). What is the pressure of the tire in atm (atmospheres)? (1 atm = 14.70 psi)

- a. 3.3 atm
- b. 0.31 atm
- c. 63. atm
- d. 33. atm
- e. 706. atm

ANSWER: a

POINTS: 1

DIFFICULTY: easy

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: base unit | si unit

OTHER: general chemistry

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137. How many liters are in a 15-oz bottle of pop?

(1 qt = 32 fluid oz)

(1 L = 1.0567 qt)

- a. 0.47 L
- b. 0.50 L
- c. 2.3 L
- d. 0.44 L
- e. 2.0 L

ANSWER: d

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: si unit | volume

OTHER: general chemistry

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138. Your friend is 5.0 ft, 8.2 in tall. What is your friend's height in meters?

- a. 0.34 m
- b. 1.7 m
- c. 34. m
- d. 27. m
- e. 68. m

ANSWER: b

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: length | si unit

OTHER: general chemistry

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139. A cat weighs 7.9 lb. What is the mass of the cat in kilograms? (1 kg = 2.2046 lb)

- a. 17 kg
- b. 0.28 kg
- c. 3.6 kg
- d. 10.1 kg
- e. 7.9 kg

ANSWER: c

POINTS: 1

DIFFICULTY: Moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: Problem Solving and Dimensional Analysis

KEYWORDS: mass | si unit

OTHER: general chemistry

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140. A walker travels a distance of 1.4 miles. How many inches did the walker travel?

(1 mi = 5280. ft)

(1 ft = 12 in)

- a. 7.4×10^3 in
- b. 6.2×10^2 in
- c. 17. in
- d. 8.6 in

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e. 8.9×10^4 in

ANSWER: e

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: length | si unit

OTHER: general chemistry

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141. A person has a mass of 8.28×10^4 g. What is this person's mass in pounds?
(1 kg = 2.2046 lb)

a. 1.83×10^5 lb

b. 3.76×10^4 lb

c. 183. lb

d. 82.8 lb

e. 828. lb

ANSWER: c

POINTS: 1

DIFFICULTY: moderate

QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: mass | si unit

OTHER: general chemistry

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142. The volume of a helium balloon is 2.2 L. What is this volume in cm^3 ? (1 L = 1 dm^3)

a. $22. \text{ cm}^3$

b. $2.2 \times 10^3 \text{ cm}^3$

c. $2.2 \times 10^2 \text{ cm}^3$

d. 0.22 cm^3

e. $2.2 \times 10^4 \text{ cm}^3$

ANSWER: b

POINTS: 1

DIFFICULTY: moderate

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QUESTION TYPE: Multi-Mode (Multiple choice)

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: si unit | volume

OTHER: general chemistry

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143. Which SI prefix corresponds to a factor of 10^{-9} ?

- a. Nano b. Micro
- c. Mega d. Milli
- e. Kilo

ANSWER: a

POINTS: 1

DIFFICULTY: Moderate

REFERENCES: 2.2

QUESTION TYPE: Multiple Choice

HAS VARIABLES: True

TOPICS: Units

KEYWORDS: prefixes | SI unit

OTHER: general chemistry

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144. What is the value of the SI prefix micro

- a. 10^{-6} b. 10^6
- c. 10^{-9} d. 10^{-3}
- e. 10^3

ANSWER: a

POINTS: 1

DIFFICULTY: easy

REFERENCES: 2.2

QUESTION TYPE: Multiple Choice

HAS VARIABLES: True

TOPICS: general concepts
measurement

KEYWORDS: prefixes | SI unit

OTHER: general chemistry

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145. What is the value of the SI prefix milli

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- a. 10^{-3} b. 10^3
c. 10^{-2} d. 10^{-6}
e. 10^6

ANSWER: a
POINTS: 1
DIFFICULTY: easy
REFERENCES: 2.2
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
TOPICS: general concepts
measurement
KEYWORDS: prefixes | SI unit
OTHER: general chemistry
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146. The fundamental unit of mass in the metric system is the _____.

- a. kilogram
b. gram
c. milligram
d. meter
e. kilometer

ANSWER: a
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.2
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: Units
KEYWORDS: base unit | si unit
OTHER: general chemistry
DATE CREATED: 12/23/2013 2:41 PM
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147. Which of the following is not a fundamental SI unit?

- a. Kilogram
b. Gram
c. Meter
d. Second
e. Kelvin

ANSWER: b
POINTS: 1

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DIFFICULTY: Moderate
REFERENCES: 2.2
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: Units
KEYWORDS: base unit | si unit
OTHER: general chemistry
DATE CREATED: 12/23/2013 2:41 PM
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148. Which of the following is not a fundamental SI unit?

- a. Kilogram
- b. Liter
- c. Meter
- d. Second
- e. Kelvin

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 2.2
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: False
TOPICS: Units
KEYWORDS: base unit | si unit
OTHER: general chemistry
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149. Which of the following metric relationships is incorrect?

- a. 1 microliter = 10^{-6} liters
- b. 1 gram = 10^3 kilograms
- c. 10^3 milliliters = 1 liter
- d. 1 gram = 10^2 centigrams
- e. 10 decimeters = 1 meter

ANSWER: b
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.2
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
TOPICS: general concepts
measurement

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KEYWORDS: prefixes | SI unit
OTHER: general chemistry
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150. Order the four metric prefixes from smallest to largest.

- a. nano- < milli- < centi- < deka-
- b. milli- < nano- < centi- < deka-
- c. deka- < centi- < nano- < milli-
- d. deka- < centi- < milli- < nano-
- e. centi- < nano- < deka- < milli-

ANSWER: a
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 2.2
QUESTION TYPE: Multiple Choice
HAS VARIABLES: True
TOPICS: general concepts
measurement

KEYWORDS: prefixes | SI unit
OTHER: general chemistry
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151. Which of the following conversion factors is incorrect?

- a. 1 microliter = 1000 nL
- b. 1 cg = 100 g
- c. 1 L = 1000 mL
- d. 1000 m = 1 km
- e. 1 kg = 10000 dg

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 1.7
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
TOPICS: Problem Solving and Dimensional Analysis
KEYWORDS: dimensional analysis
OTHER: general chemistry
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152. Which of the following conversion factors is incorrect?

- a. 1 in/2.54 cm
- b. 1 cm/2.54 in
- c. 1 kg/2.205 lb
- d. 1 m/1.094 yd

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e. 1 ft/12 in

ANSWER: b
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 1.7
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
TOPICS: general concepts
measurement
KEYWORDS: dimensional analysis
OTHER: general chemistry
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153. Which of the following conversion factors is incorrect?

- a. 1 in = 2.54 cm b. 1 lb = 2.205 kg
c. 1 kg = 2.205 lb d. 1 m = 1.094 yd
e. 1 ft = 12 in

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
REFERENCES: 1.7
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
TOPICS: Problem Solving and Dimensional Analysis
KEYWORDS: dimensional analysis
OTHER: general chemistry
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154. Which of the following conversion factors is incorrect?

- a. 1 in/2.54 cm b. 1 yd/1.094 m
c. 1 kg/2.205 lb d. 1 m/1.094 yd
e. 1 ft/12 in

ANSWER: b
POINTS: 1
DIFFICULTY: Easy
REFERENCES: 1.7
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
TOPICS: general concepts
measurement
KEYWORDS: dimensional analysis

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OTHER: general chemistry
DATE CREATED: 12/23/2013 2:41 PM
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155. Decimeter is _____.

- a. equal to a meter
- b. one-tenth of a meter
- c. one-hundredth of a meter
- d. one-thousandth of a meter
- e. twice a meter

ANSWER: b
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
TOPICS: Units
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156. Carry out the below mathematical operations, and give the result to the correct number of significant figures.

- a. 2.2×10^3
- b. 2.2×10^4
- c. 2.3×10^3
- d. 2.3×10^4
- e. 2.0×10^3

ANSWER: a
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multiple Choice
HAS VARIABLES: False
TOPICS: Significant Figures
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157. Express 0.00003031 in exponential notation.

- a. 3.031×10^{-5}
- b. 3.0×10^{-5}
- c. 3.031×10^5
- d. 3.031×10^{-4}
- e. 3.031

ANSWER: a

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POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: Scientific Notation
KEYWORDS: scientific notation | significant figures
OTHER: general chemistry
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158. Express 0.005858 in scientific notation.

- a. 5.86×10^3
- b. 5.858×10^3
- c. 5.86×10^{-3}
- d. 5.858×10^{-3}
- e. 5858×10^{-6}

ANSWER: d
POINTS: 1
DIFFICULTY: Moderate
QUESTION TYPE: Multi-Mode (Multiple choice)
HAS VARIABLES: True
TOPICS: Scientific Notation
KEYWORDS: scientific notation | significant figures
OTHER: general chemistry
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