



## General Chemistry Multiple Choice Questions Chapter 1

10 When gathering glassware and equipment for an experiment, you should

- a Read all directions carefully to know what equipment is necessary
- b Examine all glassware to check for chips and cracks
- c Clean any glassware that appears dirty
- d All of the above

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11 Personal eyeglasses provide as much protection as

- a A face shield
- b Safety glasses
- c Splashproof chemical goggles
- d None of the above

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12 Long hair in the laboratory must be

- a Cut short
- b Held away from the experiment with one hand
- c Always neatly groomed
- d Tied back or kept entirely out of the way with a device

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13 In the laboratory, the following should not be worn

- a Loose clothing
- b Dangling jewelry
- c Open-toed sandals
- d All of the above

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14 The following footwear is BEST in the laboratory

- a Sandals
- b Open-toed shoes
- c Closed-toed shoes
- d No shoes

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15 If a piece of equipment is not working properly, stop, turn it off, and tell

- a The custodian
- b Your lab partner
- c The Student Council President
- d Your science instructor

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16 If an acid is splashed on your skin, wash at once with

- a Soap
- b Oil
- c Weak Base
- d Plenty of water

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17 When you finish working with chemicals, biological specimens, or other lab substances, always

- a Treat your hands with skin lotion
- b Wash your hands thoroughly with soap and water
- c Lick your hands
- d Wipe your hands on your clothes

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## General Chemistry Multiple Choice Questions Chapter 1

1 Which of the following tools is used to precisely measure the volume of small amounts of liquid?

- a Beaker
- b Pipet
- c Erlenmeyer Flask
- d Florence Flask

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2 Which of the following is used to hold fluids in a colorimeter?

- a Pipet
- b Graduated Cylinder
- c Cuvette
- d Test Tube

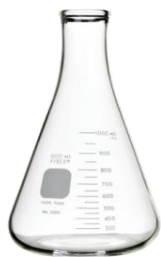
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3 Which of the following is used for vacuum filtration?

- a Side Arm Flask
- b Beaker
- c Round Bottom Flask
- d Florence Flask

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4 Identify the following piece of equipment:



- a Beaker
- b Erlenmeyer Flask
- c Round Bottom Flask
- d Florence Flask

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## General Chemistry Multiple Choice Questions Chapter 1

5 Identify the following piece of equipment:

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- a Beaker
- b Erlenmeyer Flask
- c Round Bottom Flask
- d Florence Flask

## General Chemistry Multiple Choice Questions Chapter 1

1 Which of the following data are quantitative?

- a Temperature is hot
- b Temperature is 25°C
- c Mass is heavy
- d Color of substance is orange

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2 Which of the following data are qualitative?

- a Mixture has a temperature of 25°C
- b Mixture has a density of 20 g/cc
- c Mixture has a volume of 500 liters
- d Mixture is very heavy

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3 Which of the following data are quantitative?

- a Substance has a mass of 50 g
- b Substance A is heavier than Substance B
- c Substance A has a color of red
- d Substance B is translucent

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4 Which of the following are qualitative data?

- a Mass of 150 g
- b Temperature of 300 K
- c Length of 20 cm
- d Large

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5 Which of the following are quantitative data?

- a Temperature is hot
- b Red Color
- c 32.5 kg
- d None of the above

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## General Chemistry Multiple Choice Questions Chapter 1

1 What prefix matches the fraction or multiple of a basic unit?

- A. centi-,  $10^{-2}$
- B. milli-,  $10^{-3}$
- C. micro-,  $10^{-6}$
- D. kilo-,  $10^3$

- a A and B
- b A, B, and C
- c A, C, and D
- d All of the above

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2 Which pair consists of equalities?

- a  $6 \times 10^{-2}$  mm,  $6 \times 10^{-5}$  m
- b  $3 \times 10^{-4}$  micrograms,  $3 \times 10^{-7}$  g
- c  $3 \times 10^{-3}$  mL, 3 L
- d  $7 \times 10^{-2}$  g/mL,  $7 \times 10^{-9}$  kg/L

	1.4
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3 What is the result of converting 0.256 microliters to kiloliters?

- a 0.000 000 000 256 kL
- b 0.002 56 kL
- c 0.000 000 256 kL
- d 0.000 256 kL
- e 0.000 002 56 kL

	1.4
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4 How many kilograms are in 45.3 g?

- a 4530 kg
- b 0.00453 kg
- c 45300 kg
- d 0.0453 kg
- e None of the above

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5 What is the quantity 0.0075 meters expressed in centimeters?

- a 7.5 cm
- b 705.0 cm
- c 0.075 cm
- d 0.75 cm
- e 70.5 cm

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## General Chemistry Multiple Choice Questions Chapter 1

1 Which of the following displays precision in measurement but not accuracy? (Accepted Value = 15.1 cm)

- a 15.0 cm, 15.1 cm, 15.1 cm, 14.9 cm, 14.8 cm      b 16 cm, 21 cm, 23 cm, 30 cm, 35 cm  
c 10 cm, 15 cm, 15 cm, 16 cm, 19 cm      d 3.1 cm, 3.2 cm, 3.3 cm, 3.2 cm, 3.2 cm

	1.6
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2 Which of the following displays accuracy but not precision? (Accepted Value = 15.1 cm)

- a 15.0 cm, 15.1 cm, 15.1 cm, 14.9 cm, 14.8 cm      b 16 cm, 21 cm, 23 cm, 30 cm, 35 cm  
c 10 cm, 15 cm, 15 cm, 16 cm, 19 cm      d 3.1 cm, 3.2 cm, 3.3 cm, 3.2 cm, 3.2 cm

	1.6
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3 Which of the following displays accuracy and precision? (Accepted Value = 15.1 cm)

- a 15.0 cm, 15.1 cm, 15.1 cm, 14.9 cm, 14.8 cm      b 16 cm, 21 cm, 23 cm, 30 cm, 35 cm  
c 10 cm, 15 cm, 15 cm, 16 cm, 19 cm      d 3.1 cm, 3.2 cm, 3.3 cm, 3.2 cm, 3.2 cm

	1.6
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4 Which of the following displays accuracy but not precision? (Accepted Value = 0.090 g)

- a 0.080 g, 0.050 g, 0.120 g, 0.090 g      b 0.160 g, 0.162 g, 0.165 g, 0.163 g  
c 0.091 g, 0.089 g, 0.092 g, 0.091 g      d 0.090 g, 1.235 g, 0.135 g, 0.0005 g

	1.6
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5 Which of the following displays precision but not accuracy? (Accepted Value = 0.090 g)

- a 0.080 g, 0.050 g, 0.120 g, 0.090 g      b 0.160 g, 0.162 g, 0.165 g, 0.163 g  
c 0.091 g, 0.089 g, 0.092 g, 0.091 g      d 0.090 g, 1.235 g, 0.135 g, 0.0005 g

	1.6
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6 Which of the following displays both accuracy and precision? (Accepted Value = 0.090 g)

- a 0.080 g, 0.050 g, 0.120 g, 0.090 g      b 0.160 g, 0.162 g, 0.165 g, 0.163 g  
c 0.091 g, 0.089 g, 0.092 g, 0.091 g      d 0.090 g, 1.235 g, 0.135 g, 0.0005 g

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## General Chemistry Multiple Choice Questions Chapter 1

1 Which of the following measurements is the longest?

- a  $4 \times 10^5$  mm                      b  $4 \times 10^3$  cm  
c  $4 \times 10^4$  dm                      d 0.04 km  
e All measurements are equal

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2  $42.5 \times 10^{-3}$  should be rewritten as

- a  $4.25 \times 10^{-2}$                       b  $0.425 \times 10^{-5}$   
c  $425 \times 10^{-2}$                       d  $4.25 \times 10^{-4}$   
e None of the above

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3 The diameter of a carbon atom is 0.000 000 000 154 m. What is this number in scientific notation?

- a  $1.52 \times 10^{-12}$  m                      b  $1.54 \times 10^{12}$  m  
c  $1.54 \times 10^{10}$  m                      d  $1.54 \times 10^{-10}$  m  
e None of the above

	1.7
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4 The distance from the Earth to the Sun is approximately 93000000 miles. What is this number expressed in scientific notation?

- a  $9.3 \times 10^7$  miles                      b  $9.3 \times 10^6$  miles  
c  $9.3 \times 10^8$  miles                      d  $9.3 \times 10^{-8}$  miles

	1.7
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5 The radius of the Earth is approximately  $6.37 \times 10^6$  meters. What is this number expressed in standard (expanded) notation?

- a 63700000 miles                      b 63700 miles  
c 6370000 miles                      d 637000 miles

	1.7
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## General Chemistry Multiple Choice Questions Chapter 1

1 Which of the following is a chemical change?

- a Burning of wood
- b Cutting of paper
- c Painting of a house
- d Carving of a ham

	1.13
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2 Which of the following is a physical change?

- a Baking of bread
- b Rusting of iron
- c Corrosion of metal
- d Melting of ice

	1.13
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3 Which of the following is a chemical change?

- a Electrolysis of water
- b Melting of ice
- c Boiling of water
- d Freezing of water

	1.13
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4 Which of the following is a physical change?

- a Painting a wall
- b Burning wood
- c Baking bread
- d Frying an egg

	1.13
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5 Which of the following is a physical change?

- a Melting ice
- b Creation of water from hydrogen and oxygen
- c Rusting of a nail
- d Digestion of food

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## General Chemistry Multiple Choice Questions Chapter 1

1 A substance that can be separated into two or more substances only by a chemical change is a(n)

- a Compound
- b Solution
- c Element
- d Mixture
- e Colloid

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2 Which of the following materials is a substance?

- a Stainless steel
- b Silver
- c Gasoline
- d Air
- e Tossed Salad

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3 Which of the following is a compound?

- a Sodium Chloride
- b Silver
- c A Pepperoni Pizza
- d Air

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4 Salt water is an example of what?

- a Compound
- b Element
- c Solution
- d Colloid

	1.14
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5 Potassium is an example of what?

- a Compound
- b Element
- c Solution
- d Colloid

	1.14
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6 Milk is an example of what?

- a Compound
- b Element
- c Solution
- d Colloid

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## General Chemistry Multiple Choice Questions Chapter 1

1 In what state of matter is molecular motion slowest?

- a Solid
- b Liquid
- c Aqueous
- d Gas

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2 What is the direct conversion of solid to gas termed?

- a Condensation
- b Sublimation
- c Evaporation
- d Deposition

	1.15
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3 What is the direct conversion of gas to solid termed?

- a Condensation
- b Sublimation
- c Evaporation
- d Deposition

	1.15
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4 In what state of matter is molecular motion fastest?

- a Solid
- b Liquid
- c Aqueous
- d Gas

	1.15
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## General Chemistry Multiple Choice Questions Chapter 1

1 Salt water is an example of a

- a Heterogeneous mixture
- b Homogeneous mixture
- c Colloid
- d Suspension

	<b>1.16</b>
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2 A pepperoni pizza is an example of a

- a Heterogeneous mixture
- b Homogeneous mixture
- c Colloid
- d Suspension
- e Solution

	<b>1.16</b>
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3 A homogeneous mixture is \_\_\_\_ throughout, while a heterogeneous mixture is \_\_\_\_ throughout.

- a Diverse, diverse
- b Diverse, uniform
- c Uniform, diverse
- d Uniform, uniform
- e None of the above

	<b>1.16</b>
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4 Muddy water is an example of a

- a Solution
- b None of the above
- c Colloid
- d Suspension

	<b>1.16</b>
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## General Chemistry Multiple Choice Questions Chapter 1

1 What is the correct atomic symbol for Manganese?

- a Mn  
b Mg  
c Ma  
d Me

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2 What is the correct atomic symbol for Tungsten?

- a T  
b Tu  
c W  
c Tg

	1.17
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3 What is the correct atomic symbol for gold?

- a Au  
b Ag  
c Go  
d Gd

	1.17
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4 What is the correct atomic symbol for silver?

- a Au  
b Ag  
c Go  
d Gd

	1.17
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5 What is the correct atomic symbol for magnesium?

- a Mn  
b Mg  
c Ma  
d Me

	1.17
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6 What is the correct atomic symbol for carbon?

- a C  
b Co  
c Ca  
d Cb

	1.17
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7 Which of the following names of elements is *incorrectly* matched with its chemical symbol?

- a sodium - Na  
b phosphorus - P  
c magnesium - Mn  
d tin - Sn

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