

1. What is the density of a sample whose mass is 12.02 g and whose volume is 6.01 mL?
2. Which of the following is an element?
 - a. sand
 - b. water
 - c. gold
 - d. sugar
3. Differentiate heterogeneous from homogenous mixtures.
4. Which of the following is not a step in a valid scientific method?
 - a. developing a procedure to test your hypothesis
 - b. drawing a conclusion without any supporting evidence
 - c. forming a testable hypothesis
 - d. making observations

ANSWERS

1. 2.00 g/mL

2. c

3. heterogeneous mixture: parts are noticeably different;
homogeneous mixture: parts are difficult to distinguish
4. b

5. Identify the tools needed to measure temperature and length.
6. True or False: All of the following units are SI units: meter, pound, and kelvin.
7. Density, mass, and volume are related by the equation $\text{density} = \text{mass}/\text{volume}$. What equation would you use to find volume if you knew the density and mass?
8. Bromine boils at a temperature of 58.63°C . What is this temperature in kelvins?

ANSWERS

5. thermometer and ruler
6. False
7. $\text{volume} = \text{mass}/\text{density}$
8. 331.78 K