

Assessment**Chapter 1****BLM 1-4****Chapter 1 Test****Goal**

Demonstrate and assess your understanding of the concepts presented in Chapter 1.

**Part 1:
Multiple
Choice**

Circle the letter corresponding to the best answer.

- The metric base unit to measure linear dimensions is the:
(a) kelvin (b) metre
(c) candela (d) kilogram
(e) second
- Which of the following is not an SI base unit?
(a) litre (b) second
(c) ampere (d) kilogram
(e) mol
- Which digit or digits describing the result of a scientific measurement are uncertain?
(a) the last (b) the last two
(c) all of them (d) none of them
(e) the first
- How many significant digits are contained in the number 0.000540?
(a) two (b) three
(c) five (d) six
(e) seven
- Which of the following statements describes an important characteristic of pure substances?
(a) They are solutions. (b) They are mixtures.
(c) They are composed of one element. (d) They have a fixed chemical composition.
(e) They have variable composition.
- All mixtures:
(a) are easy to separate (b) have a constant boiling point
(c) have a chemical formula (d) are the result of chemical change
(e) are composed of parts with different identities
- An example of a pure substance is:
(a) salt water (b) copper(II) chloride
(c) air (d) tap water
(e) soda water

Assessment**Chapter 1****BLM 1-4****Chapter 1 Test** (continued)**Part 2:
Short Answer
& Calculations**

8. Carry out the following metric conversions.
- (a) 45.6 g to mg
 - (b) 0.00867 kL to mL
9. Perform the following calculations and express the answer to the correct number of significant digits.
- (a) 0.000354×2.8
 - (b) $7.90 + 3.222$
 - (c) $8.432 \div 2.5$
 - (d) $0.17 - 0.154$
10. Identify the following as being either a physical or a chemical change.
- (a) a chicken cooking in the oven
 - (b) ice cubes subliming
 - (c) iron rusting in air
 - (d) water evaporating from salt water in a beaker when heated
 - (e) toasting a slice of bread
 - (f) burning a log
11. Round off the following to the number of significant digits indicated.
- (a) 0.0002554, to 2 significant digits
 - (b) 35.8348, to 4 significant digits
 - (c) 11.4555, to 3 significant digits
12. How long is the object shown below? Record your answer using the correct number of significant digits.

