Extra Problems for Chapter 1

1. How many significant figures are in the following measurements?

   a. 106 mL b. 1.20×10^{3} cm c. 3.400 kg d. 0.00067000 in

2. What is the correct answer to the following equation?

   18 g + 1.6912 g

3. The length of a pin is 0.0258 m. What is the length in mm?

4. The mass of a stone is 56.1 kg. What is its mass in g?

5. The volume of a container is 0.005 kL. How many mL is that?

6. An object has a length of 3.45 m. What is its length in inches? (2.54 cm = 1 inch)

7. Convert the following measurements into scientific notation with 4 significant figures each.

   a. 17,000 kg b. 0.01670 m c. 0.008761 mg d. 120 km

8. Convert the following measurements into decimal notation.

   a. 7.21×10^{3} km b. 1.17×10^{-5} mL c. 3.112×10^{8} kg d. 5.12×10^{-7} m

9. A container has a volume of 750 cm^3. What is its volume in liters?

10. A sample of liquid has a volume of 0.013 m^3. What is the volume in liters?

11. Silicon has a density of 2.3 g/mL. What is the volume of a silicon block that has a mass of 1.72 kg?

12. What is the mass of a silicon block that has a volume of 0.45 liters?