Chapter 2, section 1 assessment

- 1. What are the characteristics of Matter?
- 2. Explain the difference between chemical and physical properties.
- 3. What is a pure substance?
- 4. Ice melts and liquid water freezes at 0° C, liquid water boils and water vapor condenses at 100°C. Is this an example of a chemical or physical property? Explain your answer.
- 5. When bread dough bakes, gasses are produced, creating the spaces (holes) in the bread. Is baking bread an example of a chemical or physical property? Explain your reasoning.
- 6. How are elements and compounds similar?
- 7. How are elements and compounds different?
- 8. Plants make a sugar compound with the chemical formula C₆H₁₂O₆. What elements make up this compound?
- 9. How does a heterogeneous mixture differ from a homogeneous mixture?
- 10. Explain why seawater is a mixture?
- 11. Suppose you stir a little baking soda into water until the water looks clear again. How could you prove to someone that the clear material is a solution, and not a compound?
- 12. Look at the following chemical formulas: H₂O and H₂O₂. Do these formulas represent the same compound? Explain.

1. Define Mass

- 2. Why is mass more useful than weight for measuring matter?
- 3. Define volume
- 4. What measurements must you make to determine the density of a sample of matter?
- 5. How can you determine whether a solid substance is more or less dense than water?

Use the density triangle to complete the following density calculations.

6. A piece of metal has a volume of 38cm³ and a mass of 277g. Calculate it's density.



7. Iron has a density of 7.9 g/cm³. Calculate the mass of 38 cm³ of Iron.



8. Lead has a density of 11.3 7.9 g/cm³. What would be the volume of 277 g. of Lead?

