Worksheet #2: Density **Name**_____

1. Density describes the relationship between the _____ and _____ of a sample of a substance.
2. The most common units for density are _____ and _____.
3. The density of water is _____.
4. A small beaker contains 55.0 mL of water. What would be the mass of the water?

5. Object A has a mass of 500 g and a density of 5.0 g/cm^3. Object B has a mass of 650 g and a density of 6.5 g/cm^3.
   a. Which object would displace the most liquid? EXPLAIN.

   b. Could the two objects be made of the same substance? EXPLAIN.

6. The density of silver is 10.5 g/cm^3. What will be the volume of a piece of silver having a mass of 31.5 g?

7. A sample of iron occupies a volume of 10.0 cm^3. If the density of iron is 7.9 g/cm^3, what is the mass of the sample?

8. Iron is sold in sheets that are 2.0 cm thick and 120.0 cm wide. You want to buy a sheet of iron with a mass of 50,000.0 g. What must be the length of the sheet of iron?