**Formulas for Density Calculations**

**Density = Mass/Volume (D= M/V)**

**Volume = Mass/Density (V= M/D)**

**Mass = Density x Volume (M = D x V)**

1. **Wood has a density of 5.53g/cm3. What must the volume of 33.3 g of wood?**
2. **Copper has a density of 4.44 g/cm3. What is the volume of 2.78g of copper?**
3. **Sodium has a density of 1.95 g/cm3. What is the volume of 56.2g of sodium?**
4. **What is the density of a piece of iron that has a mass of 59.8g and a volume of 2.08 cm3?**
5. **What is the density of mercury that has a mass of 39.6 g and a volume of 9.00 cm3?**
6. **Granite has a density of 4.67 g/cm3. What is the mass of 46.8 cm3 of granite?**
7. **Corn oil has density of 6.89 g/cm3. What is the mass of 34.0 cm3 of corn oil?**
8. A block of aluminum occupies a volume of 15.0 mL and weighs 40.5 g. What is its density?
9. Mercury metal is poured into a graduated cylinder that holds exactly 22.5 mL. The mercury used to fill the cylinder weighs 306.0 g. From this information, calculate the density of mercury.
10. A rectangular block of copper metal weighs 1896 g. The dimensions of the block are 8.4 cm by 5.5 cm by 4.6 cm. From this data, what is the density of copper?
11. A flask that weighs 345.8 g is filled with 225 mL of carbon tetrachloride. The weight of the flask and carbon tetrachloride is found to be 703.55 g. From this information, calculate the density of carbon tetrachloride.
12. Find the mass of 250.0 mL of benzene. The density of benzene is 0.8765 g/mL.
13. 10) What volume of silver metal will have a mass of exactly 2500.0 g? The density of silver is 10.5 g/cm3.