Density Calculations

1. A solution has a mass of 6.5g and a volume of 34mL. What is the density?

$$\frac{6.5\text{ g}}{34\text{ mL}} = 0.19\text{ g/mL}$$

2. A block of wood has a volume of 5.6cm^3 and a mass of 23.4g. What is the density?

$$\frac{23.4\text{ g}}{5.6\text{ cm}^3} = 4.2\frac{\text{g}}{\text{mL}}$$

3. A liquid has a density of 83.4 g/mL and a volume of 3.0L. What is the mass of the liquid?

$$3.0\text{L} \times \frac{1000\text{mL}}{1\text{L}} \times \frac{83.4\text{ g}}{1\text{mL}} = 2.5\times10^5\text{ g}$$

4. A solid object has a mass of 79.34g and a density of 9.4g/cm^3. What is the volume of the object?

$$79.34\text{ g} \times \frac{1\text{cm}^3}{9.4\text{ g}} = 8.4\text{ cm}^3$$