Molarity (M)

$$\text{Molarity} = \frac{\text{moles of solute}}{\text{liter of solution}}$$

Solve the problems below.

1. What is the molarity of a solution in which 58 g of NaCl are dissolved in 1.0 L of solution?

2. What is the molarity of a solution in which 10.0 g of $AgNO_3$ is dissolved in 500. mL of solution?

3. How many grams of KNO_3 should be used to prepare 2.00 L of a 0.500 M solution?

4. To what volume should 5.0 g of KCl be diluted in order to prepare a 0.25 M solution?

5. How many grams of $CuSO_4 \cdot 5H_2O$ are needed to prepare 100. mL of a 0.10 M solution?