

# Warm Up

What would be the concentration of a solution **after** diluting 45.0 mL of 4.2 mol/L KOH to 250 mL?

$$V_i = 45.0 \text{ mL}$$

$$C_i = 4.2 \text{ mol/L}$$

$$V_f = 250 \text{ mL}$$

$$C_f = ?$$

$$V_i C_i = V_f C_f$$

$$(45.0 \text{ mL})(4.2 \text{ mol/L}) = (250 \text{ mL}) C_f$$

$$C_f = \frac{(45.0 \text{ mL})(4.2 \text{ mol/L})}{(250 \text{ mL})}$$

$$C_f = 0.76 \text{ mol/L}$$

$$\textcircled{1} \quad m = ?$$

$$C = \frac{n}{V}$$



$$V = 125 \text{ mL}$$

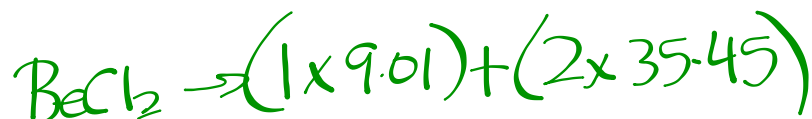
$$C = 0.050 \text{ M}$$

$$0.050 \text{ mol/L} = \frac{n}{0.125 \text{ L}}$$

$$n = (0.050 \text{ mol/L})(0.125 \text{ L})$$

$$n = 0.00625 \text{ mol}$$

$$0.00625 \text{ mol BeCl}_2 \times \frac{79.91 \text{ g BeCl}_2}{1 \text{ mol BeCl}_2} = 0.50 \text{ g BeCl}_2$$



# Check Homework

# Homework

Worksheet  
p. 499 #50,51,53