

$$\begin{aligned} 1. \quad c_c V_c &= c_d V_d \\ V_c &= \frac{c_d V_d}{c_c} \\ &= \frac{(1.75 \frac{\text{mol}}{\text{L}})(500 \text{ mL})}{8.61 \text{ mol/L}} \\ &= 101.6 \text{ mL} \\ &= 102 \text{ mL} \end{aligned}$$

Steps

1. Pipette 102 mL of the 8.61 $\frac{\text{mol}}{\text{L}}$ solution into a 500 mL volumetric flask.
2. Fill to the line with deionized water.
3. Cap and shake.