

Question 1 (3 point): Explain how you would prepare 350.0 mL of a 0.50 M sodium chloride solution

$$\frac{0.5 \text{ moles}}{1 \text{ L}} \times 0.35 \text{ L} \times \frac{58.5 \text{ grams}}{1 \text{ mole}} = 10.24 \text{ g}$$

1. Weigh out 10.24 grams of NaCl
2. Place in a 350 mL volumetric flask
3. Add a little water to dissolve and allow to come back to room temp
4. Fill to the line on the volumetric flask

Question 2 (2 points): 5.0 mL of 0.80 M sulfuric acid is diluted to a final volume of 100.00 mL, what is the concentration of the dilution?

$$M_1V_1 = M_2V_2 \quad (.8 \text{ M})(5 \text{ mL}) = M_2 (100 \text{ mL})$$

$$M_2 = 0.04 \text{ M}$$