

1. Fill in the chart below using the information provided.

Solute	Mass of Solute	Moles of Solute	Volume of Solution	Molarity of Solution
Silver (I) nitrate	14.8 g		750. mL	
Nitric acid		0.045 mol		0.60 M
Zinc (I) chloride			600.0 mL	0.500 M

2. a. When 8.0 grams of sodium hydroxide is dissolved in sufficient water to make 400. mL of solution, what is the molarity of the solution? \

b. If this solution is then poured into a volumetric flask and made up to 1.0 L in volume, what would the molarity of the solution become?

3. A laboratory technician has been asked to prepare 750 mL of a 0.200 M sulfuric acid solution. The only sulfuric acid solution the technician has available in the stockroom is 6.00 M  $\text{H}_2\text{SO}_4$  (aq). Describe how to prepare the 0.200 M solution.