**SCH3U1 - Molar Concentrations of Solutions**

1. Calculate the concentration of a 200.0 mL solution that contains 0.250 moles of solute. **(1.25M)**
2. Find the concentration of a solution that contains 1.45 moles dissolved in 2.30 L of solution. **(0.63M)**
3. How many moles of NaOH would be needed to make 50.0 mL of a 0.750 mol/L solution?  **(0.0375mol)**
4. What mass of AgNO3 would be needed to make 250.0 mL of a 1.50 mol/L solution? **(63.7 g)**
5. What mass of CaCO3 would be needed to make 20.0 mL of a 0.400 mol/L solution? **(0.801 g)**
6. How much solution is needed to dissolve 50.0 g of K2SO4 to make a 0.500 mol/L solution? **(0.574 L)**
7. What volume of solution is required to dissolve 18.04 g of aluminum sulphide to make a 0.160 mol/L solution? **(0.741 L)**
8. What mass of sodium sulphate would be needed to make 50.0 mL of 0.150 mol/L solution? **(1.07 g)**
9. What is the chloride ion concentration in a 0.250 mol/L solution of iron (III) chloride? **(0.75 mol/L)**
10. What is the concentration of sodium ions if 50.0 g of sodium sulphate is dissolved in 750.0 mL of solution? **(0.938 mol/L)**
11. What mass of cobalt (III) nitrate is needed to make 1.25 L of a solution with a nitrate ion concentration of 0.150 mol/L? **(15.3 g)**
12. What volume of a 0.120-mol/L copper (II) sulphate solution, CuSO4 (aq), contains 0.150 mol of copper (II) sulphate. **(1.25L)**