

Name: _____

Date: _____

Chemistry

Concentration of Solutions WS 2 (% Concentrations)

- I. *Perform the following concentration calculations, showing all work and circling your answer:*
1. What is the concentration in % (m/v) of a solution with 75 g K_2SO_4 dissolved in 1500 mL of solvent?
 2. How many grams of NaCl are required to make 2.5 L of 0.90% (m/v) saline solution?
 3. How much pure isopropyl alcohol is dissolved in 450. mL of 70% (v/v) solution purchased at a pharmacy?
 4. If you buy a 250 mL bottle of 3.0% (m/v) hydrogen peroxide (H_2O_2), how many grams of H_2O_2 have you purchased?
 5. How much water is required to prepare a 5.0% (m/v) solution using 20.0 g KCl?

6. How many grams of solute are required to make 500. mL of 0.30% (m/v) MgSO_4 ?

7. What is the concentration in % (m/v) of 55.5 g $\text{Sr}(\text{NO}_3)_2$ dissolved in 225 mL H_2O ?

8. 425 mL of KOH solution is prepared by dissolving 32.0 g of solute. What is its concentration in % (m/v)? What is its molarity?

9. What is the concentration in % (m/v) of a 0.33 M H_3PO_4 solution? (*hint: determine the mass of solute first by letting $V = 1\text{ L}$ and solving for n*)

10. What is the concentration in % (m/v) of 750 mL of a 3.5 M H_2SO_4 solution?