Name:

% Concentration

1. **Calculate** the % concentration of a 150 mL solution containing 30 g of solute.

ANS: 20% (g/mL)

2. **Calculate** the % concentration of a solution where 67 g of solute are dissolved to make 1.2 L of solution.

ANS: 5.6% (g/mL)

3. **Calculate** the volume of a 40% m/V solution that contains 70 g of solute.

ANS: 175mL

4. **Calculate** the amount of solute dissolved to make 0.5 L of a 20% solution.

ANS: 100g

5. **Calculate** the volume of a 75% solution made by dissolving 50 g of solute in water.

ANS: 66.6mL

6. **Calculate** the % V/V of a solution made with 45 mL of alcohol and 125 mL of water.

ANS: 26.5%

7. **Calculate** the % V/V of a 250 mL solution made with 67 mL of acetone in water.

ANS: 26.8%

8. **Calculate** the volume of peroxide needed to make 300 mL of a 15% peroxide solution.

ANS: 45mL

9. **Calculate** the volume of water needed to make 280 mL of a 30% alcohol solution.

ANS: 196mL

10. You are given 150 g of a 5% acidic solution.

    a. **Calculate** the mass of acid in this solution.

ANS: 7.5g

    b. **Calculate** the mass of water in this solution.

ANS: 142.5g

11. A 720 g solution of salt contains 25 g of salt

    a. **Calculate** the % m/m.

ANS: 3.5%

    b. **Calculate** the mass of water in this solution.

ANS: 695g