



## Conversions – Percentage Strength

### Chapter 6 Worksheet D

*You'll need to memorize the following equation:*

$$\frac{\text{solute}}{\text{solvent}} = \frac{\%}{100}$$

*The solution can be defined three ways:*

$$\frac{\text{g}}{\text{mL}} \quad \frac{\text{g}}{\text{g}} \quad \frac{\text{mL}}{\text{mL}}$$

- 1) How many mL of solvent is required to make a 10% soln. from 20 g of solute?
  - a. 20 mL
  - b. 50 mL
  - c. 100 mL
  - d. 200 mL
- 2) How many mL of solvent is required to make a 20% soln. from 10 g of solute?
  - a. 30 mL
  - b. 50 mL
  - c. 70 mL
  - d. 90 mL
- 3) How many mL of solvent is required to make a 5% soln. from 1 g of solute?
  - a. 20 mL
  - b. 50 mL
  - c. 100 mL
  - d. 200 mL
- 4) How many g of solute are there in 2.5 L of a 25% solution?
  - a. 500 g
  - b. 525 g
  - c. 600 g
  - d. 625 g
- 5) How many g of solute are there in 125 mL of a 5% solution?
  - a. 5 g
  - b. 5.25 g
  - c. 6 g
  - d. 6.25 g
- 6) How many milligrams of NaCl could be extracted from a 5 mL solution of 0.225% NaCl?
  - a. 0.01125 mg
  - b. 8.25 mg
  - c. 11.25 mg
  - d. 825 mg
- 7) How many grams of NaCl are in 300 mL of 0.45% NaCl?
  - a. 1,350 g
  - b. 135 g
  - c. 13.5 g
  - d. 1.35 g
- 8) What percentage strength solution would result from combining 7.5 g KCl with 250 mL of D5W?
  - a. 5%
  - b. 3%
  - c. 1%
  - d. 0.5%
- 9) What percentage strength solution would result from combining 10 g Dextrose with 500 mL of Water?
  - a. 50%
  - b. 30%
  - c. 10%
  - d. 2%