

# Practice Test (H)

## Chapter 12

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Per: \_\_\_\_\_

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**DIRECTIONS:** Answer the following in the space provided.

1. What is the definition of molality?

\_\_\_\_\_

2. What ratio describes molarity?

\_\_\_\_\_

3. Why is molarity temperature dependent?

\_\_\_\_\_

4. Describe the two steps of solution formation.

1. \_\_\_\_\_

2. \_\_\_\_\_

5. How do intermolecular forces affect the formation of solutions?

\_\_\_\_\_

\_\_\_\_\_

6. Define solubility. List three things that affect solubility.

\_\_\_\_\_

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

7. Describe the 'like dissolves like' rule. \_\_\_\_\_

\_\_\_\_\_

8. List four things that affect rate of solution.

1. \_\_\_\_\_ 2. \_\_\_\_\_

3. \_\_\_\_\_ 4. \_\_\_\_\_

9. Describe unsaturated, saturated and supersaturated solutions.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

10. How is percentage by mass (or volume) calculated?

\_\_\_\_\_

\_\_\_\_\_

11. Calculate the percentage by mass of 20.0 g NaOH in 140. g water. (12.5%)

12. Calculate the percentage by volume of 25.0 mL HCl in 130. mL water. (16.1%)

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13. Calculate the mole fraction of 2.00 moles of KOH in 7.00 moles of water. (0.222)

14. Calculate the number of moles of solute necessary to make 30.0 L of a 2.5 M solution. (75 mol)

15. Calculate the molarity of 2.5 moles solute in 3000. mL of solution. (0.833M)

16. Calculate the molality of 50.0 g of NaOH in 750. g of water. (1.67 m)

17. 560 mL of water is added to 340 mL of a 0.50 M NaBr solution, what will the new concentration be? (0.19 M)

18. What mass of  $\text{Na}_2\text{CrO}_4$  is required to react completely with 75.0 mL of a 0.100 M solution of  $\text{AgNO}_3$ ? (0.607 g)