- 1. When gasoline is used to dissolve grease the gasoline is the (solute/solvent).
- 2. When gasoline is used to dissolve grease the grease is the (solute/solvent).
- 3. The substance dissolved in a solution is the (solute/solvent).
- 4. What solutes are examples of electrolytes in water solutions?
- Increasing the temperature of a solution (increases/decreases) the <u>frequency</u> of solute solvent collisions and (increases/decreases) the <u>energy</u> of solute - solvent collisions.
- 6. When two liquids blend easily to form a solution, the liquids are said to be \_\_\_\_\_.
- A substance that dissolves in a water to form a solution that conducts an electric current is said to be an \_\_\_\_\_.
- 8. (Increasing/decreasing) the temperature will increase the solubility of a gas in water.
- 9. (Increasing/decreasing) the pressure will increase the solubility of a gas in water.
- 10. List 3 changes that can be made to increase the rate of dissolving of a salt in water?
- 11. In a solution of sugar and water \_\_\_\_\_ is the solute.
- 12. In a solution of sugar and water \_\_\_\_\_ is the solvent.
- 13. The dissolving medium in a solution is the \_\_\_\_\_.
- 14. The speed of solvent molecules can be slowed by (increasing/decreasing) the temperature.
- 15. A homogeneous mixture of two or more substances is known as a \_\_\_\_\_.
- 16. In a solution of ammonia in water, the ammonia is the (solute/solvent).
- 17. In a solution of ammonia in water, the water is the (solute/solvent).

- What is the concentration of a solution in grams/Liter when 80 grams of sodium chloride, NaCl, is dissolved in 2 liters of solution?
- 19. What is the molarity (moles per liter) of a solution in which 80 grams of sodium hydroxide, NaOH, is dissolved in 1 liter of solution?
- 20. A solution of sugar contains 35 grams of sucrose,  $C_{12}H_{22}O_{11}$  in 100 mL of solution. What is the percent composition of the solution?
- 21. What is concentration, in parts per million, of a solution in which 50 grams of aluminum oxide,  $AI_2O_3$ , is dissolved in 500 mL of solution?
- 22. Bases have a pH that is (less than/greater than/ equal to) 7.
- 23. Acids have a pH that is (less than/greater than/ equal to) 7.
- 24. HNO<sub>3</sub> is the formula for a(n) (acid/base)?
- 25. NaOH is the formula for a(n) (acid/base)?
- 26. When acids react with metals, the gas produced is \_\_\_\_\_?
- 27. A positive test for an acid occurs when blue litmus turns \_\_\_\_\_?
- 28. A positive test for a base occurs when red litmus turns \_\_\_\_\_?
- 29. In a neutralization reaction between sodium hydroxide, NaOH, and hydrochloric acid, HCl, the products in the reaction are \_\_\_\_\_ and \_\_\_\_\_.
- 30. An acid is a hydrogen ion (H<sup>+</sup>) (acceptor/donor).
- 31. A base is a hydrogen ion (H<sup>+</sup>) (acceptor/donor).
- 32. Acids taste \_\_\_\_\_.
- 33. Bases taste \_\_\_\_\_.
- 34. Bases cause phenolphthalein to turn the color,
- 35. Acids are (electrolytes/nonelectrolytes) and bases are (electrolytes/nonelectrolytes).
- 36. (Strong/weak) acids lonize completely and produce (hydrogen ions/hydroxide ions) in solution