

5/20/16

Acid, Base + Salt

Conjugate pair - formed from the same unit

Hmwk:

1. G

2. C

3. H

4. J

5. E

6. F

7. I

8. D

9. B

10. A

11. Sulfuric acid

12. Sodium hydroxide (base)

13. ammonia

14. hydrochloric acid $HCl \leftrightarrow Cl^-$

15. potassium hydroxide (base)

16. nitric acid

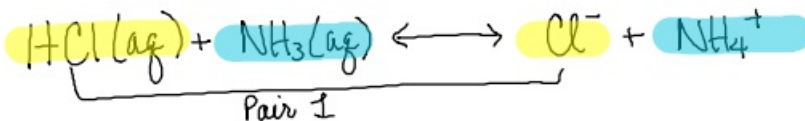
Arrhenius Acid - substance that donates a hydrogen

Arrhenius Base - Substances that increase OH^-

Bronsted-Lowry

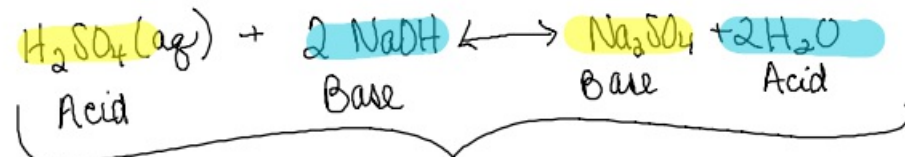
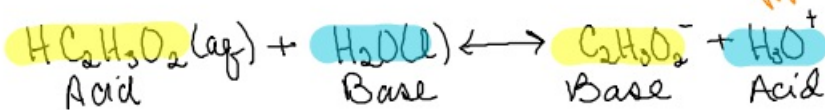
Acid = proton donor (loses H^+)

Base = proton acceptor (gains H^+)



Acid Pair 1 = HCl Base = Cl^-

Acid Pair 2 = NH_4^+ Base = NH_3



neutralization reaction Acid + base -> salt + H_2O

Strong Acid + wk base -> acidic salt

wk Acid + Strong base -> basic salt

wk Acid + wk base -> unable to determine

Strong Acid + Strong base -> neutral salt

Name: _____ Block: ___ Date: _____
Solutions/Acids/Bases Review

Complete the following multiple choice questions. (2 pts each)

B 1. To express a solution concentration in molarity, you need to know all of the following except:

- a. mass of solute
- b. mass of solvent
- c. total volume of solution
- d. chemical formula of solute

A 2. Increasing the temperature of liquid-solid solution will _____ solubility.

- a. increase
- b. decrease
- c. not change

B 3. The concepts of molarity and molality are similar because:

- a. both are based on the total volume of the solution
- b. both express the amount of solute in moles
- c. both are mass/mass relationships
- d. both are volume/volume relationships

C 4. A solution that holds less solute than would be expected is referred to as:

- (A) a. dilute
- b. saturated
- c. unsaturated
- d. supersaturated

C 5. A solution that is a mixture of metals is called a(n):

- a. tincture
- b. electrolyte
- c. alloy
- d. aqueous

A 6. When two substances will NOT dissolve in each other the mixture is referred to as:

- a. immiscible
- b. equilibrium
- c. miscible
- d. saturation

D 7. Which of the following does not contribute to the rate of dissolving?

- a. surface area
- b. temperature
- c. stirring
- d. freezing point

D 8. The graph that represents the relationship between the amount of solute that can be dissolved and the temperature is:

- a. heating curve
- b. vapor pressure curve
- c. phase diagram
- d. solubility curve

B 9. The ratio of moles of solute to kilograms of solvent is called:

- a. mole fraction
- b. molality
- c. molarity
- d. molar mass

D 10. A solution that has mercury as one of its components is called a(n):

- a. tincture
- b. electrolytes
- c. alloy
- d. amalgam

C 11. The self ionization of water:

- a. creates H_3O^+ ions only
- b. involves the transfer of OH^-
- c. creates H_3O^+ and OH^- ions
- d. creates OH^- ions