Name: _____ Date: _____

Notes: Naming Acids and Bases

What kind of compounds are acids and bases? _____

How are acids and bases often defined? _____

What safety symbol can be used on acids *and* bases? _____

How did Arrhenius define an acid? _____

How did Arrhenius define an base? _____

What makes an acid *strong*? _____

How is the acidity of a solution expressed? _____

pH = –logarithm (hydrogen ion concentration) $pH = -\log[H^+]$

Determine pH of each of the solutions below based on the concentration of H+ ions.

1. [H+] = 0.036 M pH = _____
2. [H+] = 0.15 M pH = _____
3. [H+] = 0.00080 M pH = _____
4. [H+] = 0.075 M pH = _____
5. [H+] = 10.0 M pH = _____
6. [H+] = 0.0092 M pH = _____
7. [H+] = 0.000067 M pH = _____
8. [H+] = 0.00021 M pH = _____

Significant Figure Rule for Logarithms:

In a common logarithm, there are as many digits after the decimal point as there are significant figures in the original number.

Explain the relationship between pH and hydrogen ion concentration. _____

_____

Which pH range is considered acidic? _____

Which pH range is considered basic? _____

What is the pH of water? _____

What do we consider solutions with this pH? _____

How can you precisely measure the pH of a solution? _____

What can you use to determine if a solution acidic or a basic? _____

Litmus Paper Colors: Acids turn it _____ Bases turn it _____

What are **binary acids**? _____

What are **acids of oxyanions**? _____

Naming a BINARY ACID:

1. _____
2. _____
3. _____
4. _____

What do binary acids always begin with? _____

Naming the acid of an OXYANION:

What is the first thing you should do when trying to name an acid of a polyatomic ion?

_____

If the polyatomic ion ends with _____, the acid will end with _____.

If the polyatomic ion ends with _____, the acid will end with _____.

Do you ever use the prefix *hydro-* with oxyanions? _____

Name the following acids.

1. HBr _____
2. H_2CO_3 _____
3. HNO_2 _____
4. H_2CrO_4 _____
5. HF _____
6. H_3PO_4 _____
7. HCl _____
8. $HC_2H_3O_2$ _____

How do you name an Arrhenius base? _____

_____

Name the following bases.

1. KOH _____
2. $Ba(OH)_2$ _____
3. CsOH _____
4. $Ca(OH)_2$ _____
5. LiOH _____
6. NH_4OH _____