**Review Sheet: Unit 11**                                 **Name**_____

**Name these Acids:**

HI    _____          $H_2SO_3$    _____
$HNO_3$ _____          $H_3PO_4$    _____

**Write formulas for these acids:**

hydrofluoric acid:  _____          phosphorous acid:_____

**Name these bases and salts:**

KOH  _____          $MgSO_4$  _____

**Calculate:**

1.      the pH of a $1.4 \times 10^{-2}$ M NaOH solution

2.      the $[H^+]$ of a solution with pH = 3.2

3.      the $[OH^-]$ of a solution with a $[H^+]$ of $9.3 \times 10^{-4}$ M

4.  In a titration, 25.0 mL of a 0.20 M NaOH solution is used to neutralize 10.0 mL of HCl.
    a.  Write the equation for this neutralization reaction:

    b.  Calculate the molarity of the acid:

5.  In a titration, 24.2 mL of 0.120 M $Mg(OH)_2$ were required to neutralize 33.1 mL of $H_3PO_4$.
    a.  Write the equation for this neutralization reaction:

    b.  What is the molarity of the acid?

6.  What is the word equation for the neutralization of a strong acid and strong base?

7.  In a neutral solution, moles of _____ equal the moles of _____.

8.  A pH of 7 indicates that a solution is _____; a ph <7 would mean the solution is _____; and a pH >7 is a(n) _____solution.

9.  Contrast a strong acid with a weak acid:

**Define**:

1. titration-

2. electrolyte-

3. end point-

4. salt-

5. Arrhenius definition of an acid and a base-

6. operational definition-

**Fill in the blanks**:

1.    Acids have a _____ taste, react with metals to produce _____ gas, turn _____ different colors according to pH, and are _____ because their water solutions conduct electricity.  On the other hand, bases have a _____ taste, feel _____, turn _____ different colors according to pH, and are _____ because their water solutions conduct electricity.

2.    Most cleaning products are ( acidic, basic ) while most foods are (acidic, basic).

3.    Bases turn litmus _____, phenolphthalein _____, and cabbage juice _____.  Acids turn litmus _____, phenolphthalein _____, and cabbage juice _____.