**Science 10 Chapter 5 Review**

1. Fill in the table of properties for acids and bases.

|  |  |  |
| --- | --- | --- |
| **Property** | **Acid** | **Base** |
| **Taste** |  |  |
| **Touch** |  |  |
| **Indicator Test** |  |  |
| **Reaction with Metals (like magnesium or zinc)** |  |  |
| **Electrical Conductivity** |  |  |
| **pH** |  |  |
| **Production of Ions** |  |  |

1. Circle the correct answer and fill in the blanks:

A neutral has a pH of \_\_\_\_\_\_.

An acid has a pH of (less/more) than \_\_\_\_

A base has a pH of (less/more) than \_\_\_\_

Acids always start with \_\_\_\_\_

Bases always end with \_\_\_\_\_

1. A lemon has a pH of 2. A banana has a pH of 5.
   1. Which is more acidic?
   2. How many times more acidic is it?
   3. What colour would the lemon turn:
      1. Litmus Paper
      2. Methyl Orange
   4. What colour would the banana turn:
      1. Litmus Paper
      2. Methyl Orange
2. A tomato has a pH of 4. Ammonia has a pH of 11
   1. Which is more basic?
   2. How many times more basic is it?
   3. What colour would the tomato turn:
      1. Litmus Paper
      2. Phenolphthalein
   4. What colour would ammonia turn:
      1. Litmus Paper
      2. Phenolphthalein
3. List some properties of a solution with a pH of 9.
4. What colour would the indicator be in pH 5?
   1. Methyl Orange
   2. Methyl Red
   3. Bromothymol Blue
   4. Litmus
   5. Phenolphthalein
   6. Indigo Carmine
5. What colour would the indicator be in pH 7?
   1. Methyl Orange
   2. Methyl Red
   3. Bromothymol Blue
   4. Litmus
   5. Phenolphthalein
   6. Indigo Carmine
6. Write the rules for naming acids:
   1. Binary Acids

Example: HBr

* 1. Polyatomic Acids

Example: H2CO3

Example: HNO2

1. Identify if the compound is an acid, base, or a salt.
   1. HCl
   2. NaOH
   3. Al(OH)3
   4. H2O
   5. MgCl2
   6. H3PO4
   7. Na2SO4
2. When an acid and base react it is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reaction.
3. Finish the “Big Rule” for a neutralization reaction.
4. Predict the products, or the reactants of the reactions.

CsOH + H2CO3 🠒  +

HF + Mg(OH)2 🠒  +

HNO3 + Al(OH)3 🠒  +

+ 🠒 H2O + KCl

+ 🠒 H2O + LiBrO3

1. List the “Big Rule” The for the four following reactions
   1. Metal Oxides and Water
   2. Nonmetal Oxides and Water
   3. Acids and Metals
   4. Acids and Carbonates
2. Why is carbon the primary element of organic compounds?
3. Sketch the compounds of:
   1. CH4
   2. C2H6
   3. C2H4
   4. C4H10O (two ways)
   5. C5H12 (two ways)