Chemistry I Name_____

Date _____ Per ___

Worksheet # C56:Introduction to Acids and Bases

Directions: read pages 452-458 to answer the following questions:

1. List the five properties of acids given in the reading:

a. _____

b. _____

c. _____

d. _____

e. _____

2. List the five properties of bases given in the reading:

a. _____

b. _____

c. _____

d. _____

e. _____

3. What acid does each of the following contain?

a. sour milk: _____

b. vinegar: _____

c. carbonated beverages: _____

d. citrus fruits: _____

e. apples: _____

f. grape juice: _____

4. What bases do each of the following contain?

a. household ammonia: _____

b. drain and oven cleaners: _____

c. milk of magnesia: _____

f. antacids: _____ and _____

5. What do you call an acid that only contains two elements, one of which is hydrogen and the other of which is a more electronegative anion?

A _____

6. Consider table 15-1.

a. What do all the names start with (except HI)? _____

b. What do they all end with? _____

c. Why would you guess the name for HI is a little different? _____

_____

_____

d. Following the pattern shown in this table, what would you guess would be the name of each of the following (there's a periodic table in the back of the book):

i. HAt _____

ii. H_2Se _____

iii. H_2Te _____

8. What is an oxyacid? _____

_____

9. In the space below, copy the electron dot structures of:

a. Phosphoric acid (H_3PO_4)

b. Sulfuric acid (H_2SO_4)

c. What is the main (not O or H) element in phosphoric acid? _____

d. What is the main (not O or H) element in sulfuric acid? _____

10. Consider table 15-2. Notice that some acid names end in -ic and some end in -ous. Notice also that some anion names end in -ate and some end in -ite. What general rule do you see that relates the -ics and the -ous's with the -ates and the -ites ? (make it up)

_____

_____

_____

_____

_____

_____

_____

11. The Big 5 Acids: Name two uses (your choice) for each of the following:

a. Sulfuric Acid (H_2SO_4)

1. _____

2. _____

b. Nitric Acid (HNO_3)

1. _____

2. _____

c. Phosphoric Acid (H_3PO_4)

1. _____

2. _____

d. Hydrochloric Acid (HCl)

1. _____

2. _____

e. Acetic Acid (CH_3COOH - notice the acidic "H" is put on the end of the anion)

1. _____

2. _____