1. Define the following terms

**Test Review – Chem and Biochem**

* 1. Atom
  2. Element
  3. Compound

* 1. Molecule

1. Draw a covalent bond. Draw an ionic bond
   1. How is a covalent bond different than an ionic bond?



1. Write out any chemical equation. Label which chemicals are the products and which chemicals are the reactants.
2. Define what makes something acidic.
3. Draw a pH scale below. Make sure to label the numbers and what end is acidic and what end is basic.
4. If a compound is mostly based in \_\_\_\_\_\_\_\_\_\_\_ then you can call it an organic compound.
5. How many valence electrons does carbon have? This directly relates to the number of bonds that carbon make.
6. Define hydrocarbon.
7. Draw the following functional units
   1. Hydroxyl
   2. Carbonyl
   3. Carboxyl
   4. Amino
   5. Phosphate
   6. Methyl
8. Define dehydration synthesis
   1. What two types of molecules are affected by dehydration synthesis? What happens to those molecules?
9. Define hydrolysis
   1. What two types of molecules are affected by hydrolysis? What happens to those molecules?
10. What is a carbohydrate?
    1. What is the monomer? What is the polymer?
11. What is a generic formula for a carbohydrate?
12. What is a lipid?
    1. What are the 4 main categories of lipid?
13. What types of lipids are used to protect cells?
14. What is a protein?
    1. What is the monomer of a protein? What is the polymer of a protein?
    2. What are the major uses for proteins?
15. What is the type of bond that is created when two amino acids link?
16. What are the three main functional groups that are on an amino acid?