**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Price\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**pH Homework**

***Answer the following questions about pH.***

1. **What is pH?**
2. **What pH are acids? Bases?**
3. **What pH does something have to be to be neutral?**
4. **I have two solutions. One with pH of 0 one with pH of 3. How much stronger is the pH=0 solution?**
5. **I have two solutions. One with pH of 1 one with pH of 3. How much stronger is the pH=1 solution?**
6. **I have two solutions. One with pH of 9 one with pH of 8. How much stronger is the pH=9 solution?**
7. **I have two solutions. One with pH of 3 one with pH of 5. How much stronger is the pH=0 solution**
8. **I have two solutions. One with pH of 8 one with pH of 11. How much stronger is the pH=0 solution?**
9. **I have two solutions. One with pH of 12 one with pH of 14. How much stronger is the pH=14 solution?**
10. **We have learned about pH, the concentration of H+ ions in a solution. Based on basic reasoning (not in your notes), what do you think pOH is?**

***Calculate the pH for the following solutions:***

1. **A solution with a concentration of 0.0000000001 M.**
2. **A solution with a concentration of 0.001 M**
3. **A solution with volume of .1 L and has 0.000001 moles of solute.**
4. **A solution with a concentration of 1.0 x 10-9 M.**
5. **A solution with a concentration of 1.0 x 10-2 M.**

***Calculate the H+ concentration of the following solutions:***

1. **pH=2**
2. **pH=0**
3. **pH=8**
4. **pH=7**
5. **pH=4**