Acids and Bases Worksheet

Identify the following as an acid or base based on the examples:

1. Turns litmus paper blue\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Slippery or slimy feel\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. Proton donator\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Sour taste\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. Turns litmus paper red\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. Proton acceptor\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Bitter taste\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. Produces H+ in solution\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Produces OH- in solution\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10. pH greater than 7\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. pH less than 7 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. [H+] = 1.0 x 10-3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. [H+] = 1.0 x 10-13\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14. Calculate the pH value and identify the solution as acidic, basic, or neutral:

a. A solution in which [H+] = 1.0 x 10-10 M b. A solution in which [OH-] = 1.0 x 10-4 M

c. A solution in which [H+] = 3.7 x 10-9 M d. A solution in which [OH-] = 2.9 x 10-6 M

15. Calculate the pH and pOH of the following solutions:

a. 1.0 x 10-8 M OH- b. 1.0 M H+

a. 5.7 x 10-3 M OH- b. 9.8 x 10-2 M H+

16. The pH of ammonia is about 11.8, what is the pOH and the [H+] of ammonia?

17. The pOH of coffee is 9.5, What is the [OH-] and the[H+] of the coffee?

18. pH = 2.9, Find pOH, [H+], [OH-], and tell whether the solution is acidic, basic, or neutral

19. [H+] = 2.9 x 10-8, Find pOH, pH, [OH-], and tell whether the solution is acidic, basic, or neutral

20. [OH-] = 2.9 x 10-8, Find pOH, pH, [H+], and tell whether the solution is acidic, basic, or neutral