Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Acid Base Review

 Hour\_\_\_\_\_\_\_\_\_\_\_\_\_

Other common polyatomic ions

|  |  |  |
| --- | --- | --- |
| Bromate BrO3-1 | Hypochlorite ClO-1 | Perbromate BrO4-1 |
| Bromite BrO2-1 | Perchlorate ClO4-1 | Biphosphate HPO4-2 |
| Dichromate Cr2O7-2 | Chromate CrO4-2 | Bicarbonate HCO3-1 |
| Iodite IO2-1 | Iodate IO3-1 |  |

1. Name the following acids, bases, salts, and covalents

a) HClO4\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ e)HI\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b)HIO2\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ f)Fe(OH)3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c) IO3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ g)HClO\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d)NH4OH\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ h) PbO2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write the formula for the following acids, bases, salts, and covalents
2. Potassium hydroxide\_\_\_\_\_\_\_\_\_\_\_\_ e) chromic acid\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. bromous acid\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ f) hydrobromic acid\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Iron (III) nitrate\_\_\_\_\_\_\_\_\_\_\_\_\_ g) copper ( II) hydroxide\_\_\_\_\_\_\_\_\_\_\_\_\_
5. bromic acid \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ h) disulfur hexachloride \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. How do you identify an acid? Base?
7. How do you identify a salt? Covalent?
8. Why does water have a pH of 7?
9. What range of the pH scale is acidic? Basic? Neutral?

1. What is the relationship between the pH of a solution and the concentration of hydronium ions?
2. a) If I was given a solution and wanted to test if it was basic what are some different ways to test that solution?

b) If I wanted to test the pH of the solution what are some methods could be used? Which method would produce the most accurate results?

1. If you were performing a lab where you had to find the pH of the solution, would you be able to accomplish this with litmus paper? If you cannot, say what should be used instead.
2. What color does litmus paper turn in acidic solutions?
3. What color does litmus paper turn in basic solutions?
4. List 5 properties of acids.
5. List 5 properties of bases.
6. A piece of litmus paper turns blue in an unknown solution. Make a claim as to what type of substance the unknown is. State your evidence. Also list at least 3 other things you should know about this substance.

Claim \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evidence \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Facts \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. An unknown was found in the lab and when tested with a pH probe, its pH was determined to be 7. Based on the following 4 choices, what is most likely your unknown and how did you determine this? Choices: NaCl, NaOH, HCl, and CCl4.

Unknown \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How did you determine this?

1. An unknown was found in the lab and it reacted with Mg to produce a gas. Based on the following 4 choices, what is most likely your unknown and how did you determine this? Choices: NaCl, NaOH, HCl, and CCl4.

Unknown \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

How did you determine this?

1. Explain how you are going to determine if a formula or name is an acid, base, salt, or covalent. BE VERY SPECIFIC.