

## Worksheet 01 – Introduction to Acids and Bases

Answer the following questions about acids and bases.

1. Identify the following properties as applying to an acid, a base, or both:

bitter taste \_\_\_\_\_ electrolyte \_\_\_\_\_ indicator color change \_\_\_\_\_

sour taste \_\_\_\_\_

2. Write the formula for each acid or base.

barium hydroxide \_\_\_\_\_ hydrobromic acid \_\_\_\_\_

potassium hydroxide \_\_\_\_\_ hydroselenic acid \_\_\_\_\_

$\text{pH} = -\log[\text{H}^+]$  and  $\text{pOH} = -\log[\text{OH}^-]$  use these formulas for calculating pH

3. If the hydroxide-ion concentration of an aqueous solution is  $1.0 \times 10^{-3} \text{ M}$ , what is the  $[\text{H}^+]$  in the solution? Is the solution acidic, basic, or neutral?

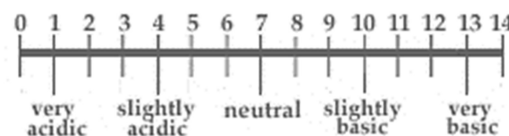
4. Classify each solution as acidic, basic, or neutral.

a.  $[\text{H}^+] = 6.0 \times 10^{-10}$  \_\_\_\_\_

b.  $[\text{OH}^-] = 3.0 \times 10^{-2}$  \_\_\_\_\_

c.  $[\text{H}^+] = 2.0 \times 10^{-7}$  \_\_\_\_\_

d.  $[\text{OH}^-] = 1.0 \times 10^{-7}$  \_\_\_\_\_



5. What is true about the relative concentrations of hydrogen ions and hydroxide ions in each kind of solution?

a. basic

b. acidic

c. neutral