

**Chemistry**

**Worksheet #2 – pH and pOH**

**Name** \_\_\_\_\_

**Date** \_\_\_\_\_

**Block** \_\_\_\_\_

1. Draw and Label a pH scale

2. Calculate the pH of solutions with the following  $[\text{H}_3\text{O}^+]$ . Identify the solution as acidic, basic or neutral.

a)  $1.00 \times 10^{-3}$

b)  $1.00 \times 10^{-10}$

c)  $6.59 \times 10^{-10}$

d)  $9.47 \times 10^{-3}$

3. Find the pH of each of the following solutions and identify them as acidic, basic or neutral

a)  $\text{pOH} = 2.00$

b)  $\text{pOH} = 8.00$

c)  $\text{pOH} = 1.263$

d)  $\text{pOH} = 9.714$

4. Calculate the pH of solutions with the following  $[\text{OH}^-]$ . Identify the solution as acidic, basic or neutral.

a)  $1.00 \times 10^{-9}$

b)  $1.00 \times 10^{-3}$

c)  $9.56 \times 10^{-4}$

d)  $7.49 \times 10^{-10}$

5. Find the pH and the  $[\text{H}_3\text{O}^+]$  of each of the following solutions and identify them as acidic, basic or neutral

a)  $\text{pOH} = 9.50$

b)  $\text{pOH} = 3.65$

c)  $\text{pOH} = 12.63$

d)  $\text{pOH} = 1.14$