

Name: _____

Block: _____

pH and Indicators

For each of the following solutions, calculate the information indicated. Choose pH indicators from the “Common Acid-Base Indicators” table in your reference packets.

1. $[\text{H}^+] = 2.5 \times 10^{-4} \text{ M}$

(a) pH =

(b) Is the solution acidic, basic, or neutral?

(c) Which pH indicator would be best for this solution?

2. $[\text{H}^+] = 4.59 \times 10^{-7} \text{ M}$

(a) pH =

(b) Is the solution acidic, basic, or neutral?

(c) Which pH indicator would be best for this solution?

3. $\text{pH} = 9.1$

(a) $[\text{H}^+] =$

(b) Is the solution acidic, basic, or neutral?

(c) Which pH indicator would be best for this solution?

4. $\text{pH} = 5.5$

(a) $[\text{H}^+] =$

(b) Is the solution acidic, basic, or neutral?

(c) Which pH indicator would be best for this solution?

5. $[\text{OH}^-] = 7.9 \times 10^{-7} \text{ M}$

(a) $[\text{H}^+] =$

(b) $\text{pH} =$

(c) Is the solution acidic, basic, or neutral?

(d) Which pH indicator would be best for this solution?