

Acid and Bases pH and pOH

Complete the following:

What is pH, with example?

What is pOH, with example?

What is K_w and how is it used?

Calculate the H^+ concentration in each of the following solutions, and indicate whether the solution is acidic, basic, or neutral.

1) $[OH^-] = 3.99 \times 10^{-5} M$ _____

2) $[OH^-] = 2.91 \times 10^{-9} M$ _____

3) $[OH^-] = 7.23 \times 10^{-2} M$ _____

4) $[OH^-] = 9.11 \times 10^{-7} M$ _____

Calculate the OH^- concentration $[OH^-]$ in each of the following solutions, and indicate whether the solution is acidic, basic, or neutral.

1) $[H^+] = 1.00 \times 10^{-7} M$ _____

2) $[H^+] = 7.00 \times 10^{-7} M$ _____

3) $[H^+] = 7.00 \times 10^{-1} M$ _____

Calculate the pH corresponding to each of the H^+ ion concentrations given below. Tell whether each solution is acidic, basic, or neutral.

1) $[H^+] = .00100 \text{ M}$ _____

2) $[H^+] = 2.19 \times 10^{-4} \text{ M}$ _____

3) $[H^+] = 9.18 \times 10^{-11} \text{ M}$ _____

4) $[H^+] = 4.71 \times 10^{-7} \text{ M}$ _____

Calculate the pH corresponding to each of the hydroxide ion concentrations given below. Tell whether each solution is acidic, basic, or neutral.

1) $[OH^-] = 1.00 \times 10^{-7} \text{ M}$ _____

2) $[OH^-] = 4.59 \times 10^{-13} \text{ M}$ _____

3) $[OH^-] = 1.04 \times 10^{-4} \text{ M}$ _____

4) $[OH^-] = 7.00 \times 10^{-1} \text{ M}$ _____

Calculate the pH corresponding to each of the pOH values given below. indicate whether each solution is acidic, basic, or neutral.

1) $pOH = 4.32$ _____

2) $pOH = 8.90$ _____

3) $pOH = 1.81$ _____

4) $pOH = 13.1$ _____

Calculate the hydrogen ion concentration , in M, for the following pH values.

1) $pH = 1.04$ _____

2) $pH = 13.1$ _____