

Practice - pH and pOH

1.) Solve for the log of the following.

- a.) 10 b.) 15 000 c.) 0.001 d.) 1.00 e.) 4.29×10^{-9} f.) 6.11×10^{-5}

2.) Solve for the log of the following.

- b.) 5 b.) -3 c.) -4.230 d.) 1.00 e.) -5.35 f.) 10

3.) Calculate pH and pOH.

a.) $[H_3O^+] = 11.8 M$ d.) $[H_3O^+] = 8.51 \times 10^{-9} M$

b.) $[OH^-] = 5.25 \times 10^{-3} M$ e.) $[OH^-] = 0.054 M$

c.) $[OH^-] = 2.31 \times 10^{-5} M$ f.) $[H_3O^+] = 7.3 \times 10^{-12} M$

4.) At $60^\circ C$, the pK_w is 13.018. Calculate the $[H_3O^+]$, $[OH^-]$, pH, and pOH for the water.

5.) You have equal amounts of two weak acids. If the pH of HA is 2.1 and the other is 4.5, which solution will conduct better?