**No Calculator Acid - Base**

1. Estimate the [H-] for a solution with pH = 4.5 x 10-3
2. Find [OH-] for a weak acidic solution at 25oC with [H+] = 2.5 x 10-5.
3. Calculate the pH of a solution that contains 0.250 M HNO2 (Ka = 4.0 x 10-4).
4. Calculate the pOH and [OH-] of a 8.0M weak acidic solution of 8.0M (Ka = 1.25 x 10-7).
5. Calculate the percent ionization of a 2.00 M weak acid. Ka = 4.5 x 10-6.