1. Check if the compound is an acid, base or salt. Then write the water reaction for the compound.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Compound | Acid | Base | Salt | Water reaction |
| Example: HCl | X |  |  | HCl + H2O --> H3O+ + Cl- |
| HCOOH | X |  |  | HCOOH + H2O <--> H3O+ + COOH- |
| NH3 |  | X |  | NH3 + H2O --> NH4+ + OH- |
| NaC2H3O2 |  | X | X | C2H3O2- + H2O --> HC2H3O2 + OH- |
| CH3NHI | X |  | X | CH3NH3+ + H2O <--> H3O+ + CH3NH2 |

1. What is the [H3O+][OH-] pH pOH of a 0.32M HCOOH solution? HCOOH Ka = 1.8E-4

1. What is the [H3O+][OH-] pH pOH of a 0.13M NH4NO3 solution? NH3 Kb = 1.8E-5

1. What is the pH of a 0.2M NH4C2H3O2 NH3 Kb = 1.8E-5 HC2H3O2 Ka = 1.8E-5

1. What is the Kb of a 0.1M weak binary acidic solution with a pH of 4.6

