

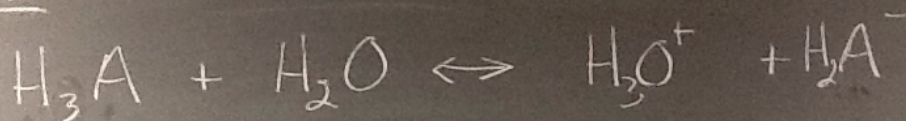
$$1 \times 10^{-14} = [H^+][OH^-]$$

$$pOH + pH = 14$$

$$pH = -\log [H^+] \quad [H^+] = 10^{-pH}$$

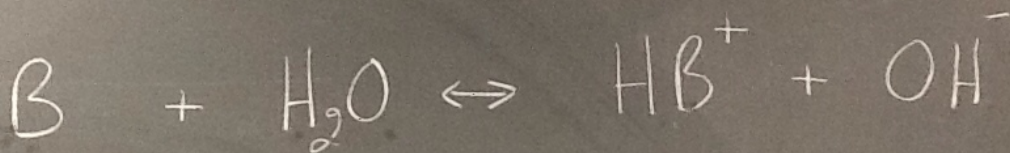
$$pOH = -\log [OH^-] \quad [OH^-] = 10^{-pOH}$$

Acids



$$K_a = \frac{[H^+][A^-]}{[HA]}$$

Bases



$$K_b = \frac{[HB^+][OH^-]}{[B]}$$

1) Weak Acids

% ionization

K_a

2) Weak Bases

K_b

3)

$$K_a \times K_b = K_w$$