

Worksheet 4

1. All _____ are *potential* bases.
2. All _____ are *potential* acids.
3. $K_a \times K_b = K_w =$ _____
4. Given $K_a = 4.5 \times 10^{-10}$ for HCN, what is the K_b of CN^- ?

5. Is KCN an acidic or basic salt?
6. What is the pH of a 0.25 M solution of KCN?

7. Will I^- ions affect the pH of a solution?
 - (a) I^- ions will decrease the pH
 - (b) I^- ions will increase the pH
 - (c) I^- ions will not change the pH

8. Use a RICE table to calculate the pH of a 0.11 M solution of HF.

9. Use a RICE table to calculate the pH of a 0.11 M solution of NaF.

10. Use a RICE table to calculate the pH of a solution that is 0.11 M in HF and in NaF.