

4.14 WEAK ACID PROBLEM SET

Name: _____

1. Calculate the pH of a 0.045 M solution of formic acid.

2. What is the $[\text{H}_3\text{O}^+]$ of 0.500 M H_2S ?

3. Calculate the K_a of a weak acid (HA) if the pH of a 0.15 M solution of the acid is 4.78.

4. Calculate the concentration of a solution of carbonic acid with a $\text{pH} = 3.45$.

5. Which solution will be most acidic? You must show all your work.

a) 0.45 M HCN

b) 0.25 M NH_4^+