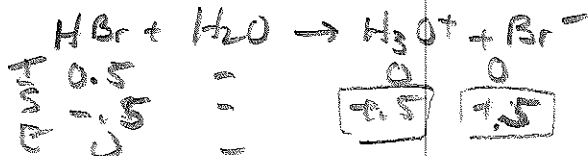


(#8-4)  
Chemistry  
pH of Strong Acids

1. 0.5M HBr.

a. Write the hydrolysis reaction and create an ISE table



b. What is the concentration of  $\text{H}_3\text{O}^+$  ions at the end?

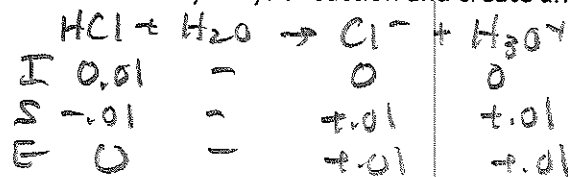
0.5M

c. What is the pH of the solution?

$$-\log(0.5) = \boxed{0.3}$$

2. .01M HCl

a. Write the hydrolysis reaction and create an ISE table



b. What is the concentration of  $\text{H}_3\text{O}^+$  ions at the end?

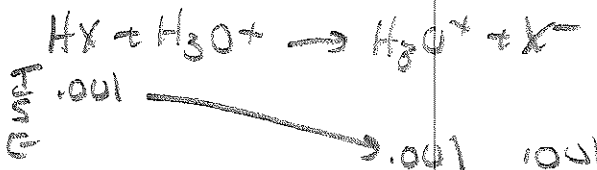
.01  $\rightarrow$  pH 2

c. What is the pH of the solution?

$$-\log(.01) \rightarrow 2$$

3. .001M HX (strong acid)

a. Write the hydrolysis reaction and create an ISE table



b. What is the concentration of  $\text{H}_3\text{O}^+$  ions at the end?

0.001

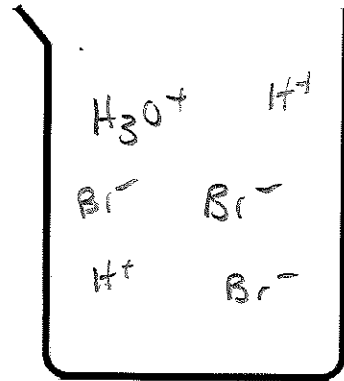
c. What is the pH of the solution?

$$-\log(.001) = 3$$

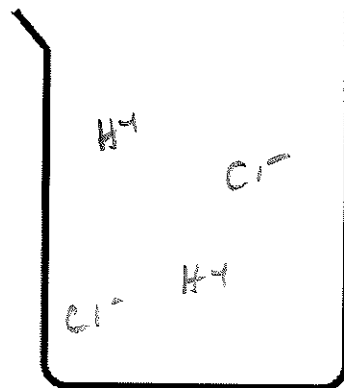
d. What is the concentration of  $\text{X}^-$

.001

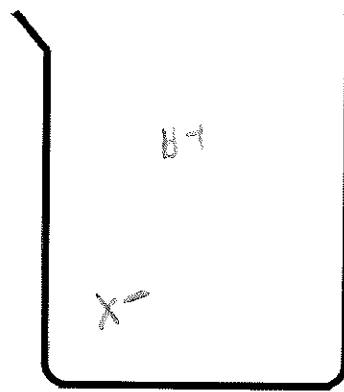
1  
Draw Proper Assembly



After



After



After