<u>EXTRA PRACTICE</u>: pH/pOH/[H^+]/[OH^-]/K_w **Name: ______________________**

The pH of a solution indicates how acidic or basic that solution is.

pH range: 0 – 7 = acidic
7 = neutral
7 – 14 = basic

Since [H^+][OH^-] = 1.0 x 10^{-14} at 25°C, if [H^+] is known, the [OH^-] can be calculated and vice versa.

pH = **-** log [H^+]
pOH = **-** log [OH^-]
[OH^-] = 10^{-pOH}
[H^+] = 10^{-pH}
K_w = [H^+] [OH^-] = 1.0 x 10^{-14}
pH + pOH = 14

Complete the following chart & show all work.

	[H^+]	pH	[OH^-]	pOH	K_w	Acid or Base
1	1.0x10^{-5} M					
2		7				
3			1.0x10^{-4} M			
4	1.0x10^{-2} M					
5				11		
6		12				
7			1.0x10^{-5} M			
8	1.0x10^{-11} M					
9				13		
10		6				