pH Worksheet and Key

1. If the $[H_3O^+]$ = 1.7 x 10^{-4}, what is the $[OH^-]$?

2. If the $[H_3O^+]$ = 5.4 x 10^{-9}, what is the $[OH^-]$?

3. If the $[OH^-]$ = 9.7 x 10^{-2}, what is the $[H_3O^+]$?

4. If the $[OH^-]$ = 4.3 x 10^{-12}, what is the $[H_3O^+]$?

5. Fill in the table:

$[OH^-]$	**$[H_3O^+]$**	**pH**
	1.1 x 10^{-3} M	
	1.0 x 10^{-7} M	
	8.3 x 10^{-1} M	
	7.2 x 10^{-12} M	
		1.0
		7.00
		9.3
		12.00

pH Key

1. If the $[H_3O^+]$ = 1.7 x 10^{-4}, what is the $[OH^-]$? **5.9 x 10^{-11} M**

2. If the $[H_3O^+]$ = 5.4 x 10^{-9}, what is the $[OH^-]$? **1.9 x 10^{-6} M**

3. If the $[OH^-]$ = 9.7 x 10^{-2}, what is the $[H_3O^+]$? **1.0 x 10^{-13} M**

4. If the $[OH^-]$ = 4.3 x 10^{-12}, what is the $[H_3O^+]$? **2.3 x 10^{-3} M**

5. Fill in the table:

$[OH^-]$	$[H_3O^+]$	pH
9.1 x 10^{-12} M	1.1 x 10^{-3} M	**2.96**
1.0 x 10^{-7} M	1.0 x 10^{-7} M	**7.00**
1.2 x 10^{-14} M	8.3 x 10^{-1} M	**0.081**
1.4 x 10^{-3} M	7.2 x 10^{-12} M	**11.14**
1 x 10^{-13} M	**.1 M**	1.0
1.0 x 10^{-7} M	**1.0 x 10^{-7} M**	7.00
2 x 10^{-5} M	**5 x 10^{-10} M**	9.3
1.0 x 10^{-2} M	**1.0 x 10^{-12} M**	12.00