NAME: **HONORS CHEMISTRY**

SECTION: pH & pOH Problems: Level 1

List the key equations here:

1. Complete the following table:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **[H3O+]** | **pH** | **[OH-]** | **pOH** | **Acidic or basic?** |
| 10-4 M | 4 | 10-10 M | 10 | acidic |
|  | 7 |  | 7 |  |
|  |  | 10-2 M |  |  |
| 10-8 M |  |  |  |  |
|  |  |  | 9 |  |

What do you notice about the sum of pH + pOH?

1. Determine the pH of a solution if its [H3O+] is 5.7 x10-4 M.
2. What is the pOH of a solution if its [OH-] is 7.18 x 10-9 M.
3. Skim milk has a [OH-] = 6.31 x 10-8 M. What is the pOH of skim milk?
4. Alyssa’s favorite soft drink is Sierra Mist, which has a [H3O+] = 9.54 x 10-4 M. What is the pH of Sierra Mist?
5. Barq’s root beer has a pH of 4.61. What is the [H3O+] for this soft drink?
6. Diet 7Up has a pOH of 10.33. What is the [OH-] for Diet 7Up?