

Work each of the following problems. Show all work and circle your final answer.

1. What is the pH of a 0.020M HCl solution?
2. Determine the pH of a 0.035M H_2SO_4 solution.
3. The pH of a 0.010M $\text{Mg}(\text{OH})_2$ solution is _____ .
4. Human blood has a pH of 7.4. Calculate both the $[\text{H}^+]$ and $[\text{OH}^-]$ concentration.
5. The greater the $[\text{H}^+]$ concentration, the (higher, lower) the pH.
6. An aqueous base has a pH of 8.1. Another has a pH of 10. Which solution has the larger concentration of $[\text{OH}^-]$ ions? _____

7. If a solution is (acidic, neutral, basic) the $[\text{H}^+]$ concentration equals the $[\text{OH}^-]$ concentration.