**Acids and Bases People Search:** Find a classmate who can answer one of the questions below. Discuss the answer and reasoning with that person. If you agree with their answer, have them print their **name** (NOT THE ANSWER) on the line in the question box. Rules: You may NOT sign any of your own boxes. In addition, any one classmate may only sign a maximum of \_\_\_\_ boxes on your paper.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Which type of negative ion do bases produce according to Arrhenius?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 2. If 50. mL of 0.50 M KOH solution is used to neutralize 125.mL of H2SO4, what is the concentration of the H2SO4?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 3. How do the [H+] and [OH-] compare in a neutral solution (pH=7)?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 4. Find conjugate pairs and label acids and bases:HCl + H2O -> Cl- + H3O+\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 5. How many times more acidic is a solution with a pH of 2 than a solution with a pH of 4?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 6. What types of particles are produced by electrolytes that allow them to conduct electricity?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 7. Determine the approximate pH of a solution that turns methyl orange yellow and litmus red.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 8. List the general formula for a neutralization reaction.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 9. Identify the laboratory process in which a solution of known concentration is used to determine the unknown concentration of another solution.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  | 10. Give an example of a solution that will turn litmus red.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  |
| 11. Describe how the [H+] changes when pH decreases (ex. going from pH 10 to 5)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 12. If pH of a solution is 2, what is the [H3O+]?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  | 13. If the [H3O+] in a solution is 1 x 10-11, determine the pH and classify as acidic or basic.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 14. Which type of positive ion do acids produce according to Arrhenius?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 15. Determine the formula of the salt that is produced when H2SO4 and KOH react.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 16. What color would bromthymol blue appear in a solution of pH 6.5?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 17. How does the Bronsted-Lowry theory distinguish acids from bases?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 18. Give an example of a solution that produces OH- as the only negative ion in solution.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 19. Compare the moles of H+ ions to the moles of OH- ions when solutions have been exactly neutralized by titration.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 20. Based on Table J, which substances will not react with acids?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 21. Find the electrolytes:-CH3OH-NaCl -H2O-H2SO4 \_\_\_\_\_\_\_\_\_\_-NaOH | 22. Define “amphoteric substance.”\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 23. When HCl reacts with Mg, what products are created?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 24. Why wouldn’t bromcresol green be an appropriate indicator to differentiate between solutions of pH 6 and 8?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 25. If 20. mL of 0.15M HCl is neutralized by 18. mL of KOH, what is the concentration of the KOH?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |  |
| --- | --- | --- |
| **Question #** | **Answer** | **Explanation/Work if Math** |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| 5 |  |  |
| 6 |  |  |
| 7 |  |  |
| 8 |  |  |
| 9 |  |  |
| 10 |  |  |
| 11 |  |  |
| 12 |  |  |
| 13 |  |  |
| 14 |  |  |
| 15 |  |  |
| 16 |  |  |
| 17 |  |  |
| 18 |  |  |
| 19 |  |  |
| 20 |  |  |
| 21 |  |  |
| 22 |  |  |
| 23 |  |  |
| 24 |  |  |
| 25 |  |  |