|  |  |
| --- | --- |
| **Understanding Acids and Bases . . . . . .** | **Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**  **Period\_\_\_\_\_\_\_** |

Use complete sentences to answer these questions.

|  |  |
| --- | --- |
| 1. | Define the term "acid" and the term "base" according to the Arrhenius Theory. |
| 2. | Define the term "acid" and the term "base" according to the Bronsted - Lowry Theory. |
| 3. | Define the term "acid" and the term "base" according to the Lewis Theory |
| 4. | Define the term "binary acid". |
| 5. | Define the term "ternary acid". |
| 6. | What is meant by "amphoteric substance"? |
| 7. | Define the term "titration". |
| 8. | What is a "standard solution"? |
| 9. | What is the "end point" of a titration? |
| 10. | What is the only source of protons in normal chemical reactions? |

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Period\_\_\_\_\_\_\_

**Acids and Bases Practice Problems**

1. Given H2SO4 is sulfuric acid, HNO3 is nitric acid, and H3PO4 is phosphoric acid, name the following:
   1. HCl
   2. H2SO3
   3. HNO2
   4. H3PO2
   5. HNO4
   6. H2SO5
   7. HI
2. Write the formula for the conjugate base of each of the acids above.
3. Describe each of the acids in question #1 as either strong or weak.

4. Write the anhydrous form of each of the following:

* 1. Ca(OH)2
  2. H2SO4
  3. Fe(OH)2
  4. Fe(OH)3
  5. CaC4H4O6
  6. C5H10O2

5. Describe each of the following oxides as either acid anhydride or basic anhydride:

* 1. Li2O
  2. Fe2O3
  3. P2O3
  4. CO2