

Chemical Formulas Practice

Name _____

Period _____

Date _____

Examine the charges of each pair of ions in the table below. Write the formula of the neutral compound. Use subscripts to show the number of ions needed to make the compound neutral. Subscripts of 1 are understood and are not placed in the formula. Write the name of the compound below the formula. Positive ions are written and named first.

| -\+ | Cu^+ | Al^{3+} | Cd^{2+} | Fe^{2+} | Cr^{3+} | Zn^{2+} |
|--------------------|---------------|------------------|------------------|------------------|------------------|------------------|
| Br^- | | | | | | |
| SO_4^{2-} | | | | | | |
| SO_3^{2-} | | | | | | |
| NO_3^- | | | | | | |
| HCO_3^- | | | | | | |
| CO_3^{2-} | | | | | | |
| PO_4^{3-} | | | | | | |
| Cl^- | | | | | | |
| OH^- | | | | | | |
| I^- | | | | | | |
| CN^- | | | | | | |

| Ions and Their Charges | | | | | |
|------------------------|--------|------------------|-------------|--------|-------------------------------|
| Name | Charge | Symbol/Formula | Name | Charge | Symbol/Formula |
| Sodium | 1+ | Na ⁺ | Chloride | 1- | Cl ⁻ |
| Silver | 1+ | Ag ⁺ | Hydroxide | 1- | OH ⁻ |
| Copper (I) | 1+ | Cu ⁺ | Nitrate | 1- | NO ₃ ⁻ |
| Barium | 2+ | Ba ²⁺ | Iodide | 1- | I ⁻ |
| Cadmium (II) | 2+ | Cd ²⁺ | Bromide | 1- | Br ⁻ |
| Magnesium | 2+ | Mg ²⁺ | Bicarbonate | 1- | HCO ₃ ⁻ |
| Iron (II) | 2+ | Fe ²⁺ | Cyanide | 1- | CN ²⁻ |
| Calcium | 2+ | Ca ²⁺ | Sulfate | 2- | SO ₄ ²⁻ |
| Zinc | 2+ | Zn ²⁺ | Carbonate | 2- | CO ₃ ²⁻ |
| Aluminum | 3+ | Al ³⁺ | Sulfite | 2- | SO ₃ ²⁻ |
| Chromium (III) | 3+ | Cr ³⁺ | Phosphate | 3- | PO ₄ ³⁻ |