**Chemical Formula Writing Worksheet**

Determine the chemical formula for each cation and anion combination. Write your answers in each box.

**Set 1** (The combining power of silver is 1 and zinc is 2)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Anions -**  **Cations +** | chloride | oxide | iodide | hydride | sulfide | nitride |
| Sodium |  |  |  |  |  |  |
| Potassium |  |  |  |  |  |  |
| Magnesium |  |  |  |  |  |  |
| Calcium |  |  |  |  |  |  |
| Copper(II) |  |  |  |  |  |  |
| Iron(II) |  |  |  |  |  |  |
| Iron(III) |  |  |  |  |  |  |
| Silver |  |  |  |  |  |  |
| Zinc |  |  |  |  |  |  |
| Aluminum |  |  |  |  |  |  |

**Set 2**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Anions -**  **Cations +** | bromide | oxide | fluoride | astatide | selenide | phosphide |
| Lithium |  |  |  |  |  |  |
| Barium |  |  |  |  |  |  |
| Cesium |  |  |  |  |  |  |
| Strontium |  |  |  |  |  |  |
| Copper (I) |  |  |  |  |  |  |
| Copper (II) |  |  |  |  |  |  |
| Lead (II) |  |  |  |  |  |  |
| Lead (IV) |  |  |  |  |  |  |
| Gallium |  |  |  |  |  |  |
| Nickel (II) |  |  |  |  |  |  |

Set 3(The combining power of silver is 1 and zinc is 2. The Formula for the ammonium Ion is NH4

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Anions -**  **Cations +** | Nitrate  NO3- | | | Sulfate  SO42- | Hydroxide  OH- | carbonate  CO3 2- | | | Phosphate  PO43- | Hydrogen Carbonate  HCO3- | | |
| Sodium |  | | |  |  |  | | |  |  | | |
| Potassium |  | | |  |  |  | | |  |  | | |
| Magnesium |  | |  | |  | |  |  | | |  |
| Barium |  |  | | |  | |  |  | | |  |
| Iron(II) |  |  | | |  | |  |  | | |  |
| Iron(III) |  |  | | |  | |  |  | | |  |
| Silver |  |  | | |  | |  |  | | |  |
| Zinc |  |  | | |  | |  |  | | |  |
| Aluminum |  |  | | |  | |  |  | | |  |
| Ammonium |  |  | | |  | |  |  | | |  |

**Set 4**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Anions -**  **Cations +** | Nitrite  NO2- | Chromate  CrO42- | Sulfite  SO22- | Dichromate  Cr2O7 2- | Chlorate  ClO3- | acetate  CH3COO- |
| **Lithium** |  |  |  |  |  |  |
| **Mercury (I)** |  |  |  |  |  |  |
| **Tin (II)** |  |  |  |  |  |  |
| **Silver** |  |  |  |  |  |  |
| Iron(II) |  |  |  |  |  |  |
| Iron(III) |  |  |  |  |  |  |
| **Barium** |  |  |  |  |  |  |
| **Zinc** |  |  |  |  |  |  |
| **Aluminum** |  |  |  |  |  |  |
| **Ammonium** |  |  |  |  |  |  |

\*The acetate group, C2H3O2 or CH3COO-  is written first as this correctly shows the positionof the ionic bond.

Eg. CH3COO- Na+