**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 +**  | NitrateNO3- | SulfateSO42- | HydroxideOH- | carbonateCO3 2- | PhosphatePO43- | Hydrogen CarbonateHCO3- |
| Sodium  |  |  |  |  |  |  |
| Potassium  |  |  |  |  |  |  |
| Magnesium  |  |  |  |  |  |  |
| Barium |  |  |  |  |  |  |
| Iron(II)  |  |  |  |  |  |  |
| Iron(III)  |  |  |  |  |  |  |
| Silver  |  |  |  |  |  |  |
| Zinc  |  |  |  |  |  |  |
| Aluminum  |  |  |  |  |  |  |
| Ammonium |  |  |  |  |  |  |

**Set 4**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Anions -** **Cations +**  | NitriteNO2- | ChromateCrO42- | SulfiteSO22- | DichromateCr2O7 2- | ChlorateClO3- | acetateCH3COO- |
| **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+