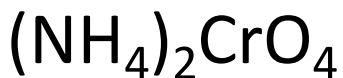


# Ionic and Covalent Compounds

E3

## Formula to Compound Name



← polyatomic ions

ionic example

is the compound: **IONIC** or **COVALENT**?

### COVALENT: non-metal + non-metal

has a prefix in at least 1 element name  
do not need to balance charges

prefixes

|    |       |
|----|-------|
| 1  | mono  |
| 2  | di    |
| 3  | tri   |
| 4  | tetra |
| 5  | penta |
| 6  | hexa  |
| 7  | hepta |
| 8  | octa  |
| 9  | nona  |
| 10 | deca  |

name →

### IONIC: metal + non-metal

only need 2<sup>nd</sup> t-chart when element has more than 1 charge

|                    | metal             | non-metal      |  |
|--------------------|-------------------|----------------|--|
| element symbol →   | $(\text{NH}_4)_2$ | $\text{CrO}_4$ |  |
| charge(s) →        | 1+<br>1+          | 2-             |  |
| do they balance? → | 2+                | 2-             |  |

name →

ammonium chromate

# Ionic and Covalent Compounds

E4

## Formula to Compound Name



← polyatomic ion

ionic example

is the compound: **IONIC** or **COVALENT**?

### COVALENT: non-metal + non-metal

has a prefix in at least 1 element name  
do not need to balance charges

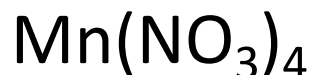
prefixes

|    |       |
|----|-------|
| 1  | mono  |
| 2  | di    |
| 3  | tri   |
| 4  | tetra |
| 5  | penta |
| 6  | hexa  |
| 7  | hepta |
| 8  | octa  |
| 9  | nona  |
| 10 | deca  |

name →

### IONIC: metal + non-metal

only need 2<sup>nd</sup> t-chart when element has more than 1 charge



|                    | metal          | non-metal                       |                                 |
|--------------------|----------------|---------------------------------|---------------------------------|
| element symbol →   | Mn             | (NO <sub>3</sub> ) <sub>4</sub> | (NO <sub>3</sub> ) <sub>4</sub> |
| charge(s) →        | 2+ or 3+ or 4+ | 1-                              | 1- x4                           |
| do they balance? → | 4+             | 4-                              | 4-                              |

name →

manganese nitrate