

## Naming Ionic Compounds (continued)

**If a Roman numeral is required, the charge on the metal ion must be determined from the charge on the negative ion.**

### Helpful Rules to Remember

A metal ion is always positive.

The Roman numeral indicates the **charge**, **not** the subscript.

The positive and negative charges must cancel (total charge must = 0).

Nonmetals are always negative & can never form more than one monatomic ion.

### Examples

Formula	Reasoning	Name
$\text{FeCl}_2$	Cl has a 1- charge, and there are 2 of them for a total of 2-, so the Fe must be 2+	iron (II) chloride
$\text{Fe}_2\text{O}_3$	O has a 2- charge, and there are 3 of them for a total of 6-, so the Fe must have a total charge of 6+ split equally between the two iron atoms, so each must have a 3+ charge	iron (III) oxide
$\text{PbS}_2$	S has a 2- charge, and there are 2 of them for a total of 4-, so the Pb must be 4+	lead (IV) sulfide
$\text{Cu}_3\text{N}$	N has a 3- charge, so the Cu must have a total charge of 3+ split equally between the 3 copper atoms, so each must have a 1+ charge	copper (I) nitride