

Atomic Particles Exercise – Ions

Date _____

Learning Goal: By the end of this activity, I will be able to...

1. determine the number of p^+ and e^- and the overall ionic charge of ions
2. name ions and write their symbols

TASK:

The following list contains **charged ions**. Use the periodic table to fill in the correct information and complete the chart. **DO NOT** draw Lewis symbols for transition metals.

| Name and Symbol | Atomic Number | Mass Number | # of n^0 | # of p^+ | # of e^- | Ionic Charge |
|-----------------|---------------|-------------|------------|------------|------------|--------------|
| | | | | 20 | 18 | |
| oxide ion | | | | | | -2 |
| F^{-1} | | | 10 | | | |
| | 26 | | | | 24 | |
| Cu^{+2} | | | 35 | | | |
| | | | | 1 | 2 | |
| Cl^{-1} | | 35 | | | | |
| | | | | 38 | 36 | |
| Ag^{+1} | | 107 | | | | |
| bromide ion, | | | | | 36 | |
| K^{+1} | | | 20 | | | |
| nitride ion, | | | | | 10 | |
| | | | | 13 | | +3 |

Worksheet: Counting Atoms

Date _____

Task: For each of the following compounds, determine the number of each type of atom or polyatomic ion. Then determine the total number of atoms for that compound.

CuCl_2 Cu = Cl = Total atoms =

Ca(OH)_2 Ca = OH = Total atoms =

Fe_2S_3

K_3PO_4

$(\text{NH}_4)_2\text{SO}_4$

$\text{Hg}_3(\text{PO}_4)_2$

Al_2O_3

PbCrO_4

$\text{Mg(ClO}_3)_2$

Ca(OH)_2