**Counting Atoms Sheet**

*Name each of the following chemical compounds (make sure you use the right naming scheme!) and determine how many atoms of each element are present:*

1) CaF2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2) Be(OH)2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3) NO2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4) Al2(SO4)3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5) NH4NO3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6) S2F2 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7) Na2CO3 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8) CH4 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Write the formulas for each of the following chemical compounds (make sure you use the right naming scheme!) and determine how many atoms of each element are present:*

9) phosphorus trichloride (covalent) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

10) magnesium hydroxide (ionic) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11) potassium phosphate (ionic) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12) diphosphorus tetrabromide (covalent) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13) Nitrogen trihydride (covalent) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14) Sodium Oxide (ionic) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15) ammonium sulfate (ionic) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

16) diphosphorus pentoxide (covalent) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Counting Atoms Sheet - Answers**

*Name each of the following chemical compounds (make sure you use the right naming scheme!) and determine how many atoms of each element are present:*

1) CaF2 **calcium fluoride, 1 calcium, 2 fluorine**

2) Be(OH)2 **beryllium hydroxide, 1 Be, 2 O, 2 H**

3) NO2 **nitrogen dioxide, 1 nitrogen, 2 oxygen**

4) Al2(SO4)3 **aluminum sulfate, 2 Al, 3 S, 12 O**

5) NH4NO3 **ammonium nitrate, 2 N, 4 H, 3 O**

6) S2F2 **disulfur difluoride, 2 sulfur, 2 fluorine**

7) Na2CO3 **sodium carbonate, 2 Na, 1 C, 3 O**

8) CH4 **methane, 1 carbon, 4 hydrogen**

*Write the formulas for each of the following chemical compounds (make sure you use the right naming scheme!) and determine how many atoms of each element are present:*

9) phosphorus trichloride **PCl3, 1 phosphorus, 3 chlorine**

10) magnesium hydroxide **Mg(OH)2, 1 Mg, 2 O, 2 H**

11) potassium phosphate **K3PO4, 3 K, 1 P, 4 O**

12) diphosphorus tetrabromide **P2Br4, 2 phosphorus, 4 bromine**

13) Nitrogen trihydride **NH3, 1 nitrogen, 3 hydrogen**

14) Sodium Oxide **Na2O 2 Na, 1 O**

15) ammonium sulfate **(NH4)2SO4, 2 H, 8 H, 1 S, 4 O**

16) diphosphorus pentoxide **P2O5, 2 P, 5 O**