

If you have a hard time naming, don't work on this part

	Ionic, Covalent, or Polyatomic?	Use Prefixes?	Compound Name
1. $Al_2O_3$	<u>Ionic</u>	<u>No</u>	<u>Aluminum Oxide</u>
2. $O_2F_2$	<u>Covalent</u>	<u>Y</u>	<u>Dioxygen Difluoride</u>
3. $BeF_2$	<u>Ionic</u>	<u>no</u>	<u>Beryllium Fluoride</u>
4. $K_2(CO_3)$	<u>Pol</u>	<u>no</u>	<u>Potassium Carbonate</u>
5. $N_2F_3$	<u>C</u>	<u>Y</u>	<u>dinitrogen trifluoride</u>
6. $SF_6$	<u>C</u>	<u>Y</u>	<u>sulfur hexafluoride</u>
7. $Al_2(CrO_4)_3$	<u>P</u>	<u>n</u>	<u>Aluminum Chromate</u>
8. $P_4S_3$	<u>C</u>	<u>Y</u>	<u>Tetraphosphorus trisulfate</u>
9. $NaN_3$	<u>I</u>	<u>N</u>	<u>Sodium Nitride</u>
10. $MgO$	<u>I</u>	<u>N</u>	<u>Magnesium Oxide</u>
11. $PF_3$	<u>C</u>	<u>Y</u>	<u>Phosphorus trifluoride</u>
12. $CO_2$	<u>C</u>	<u>Y</u>	<u>Carbon dioxide</u>

Metal or Non-metal?

<u>M</u>	Cobalt ( <u>Co</u> )
<u>M</u>	Sodium ( <u>Na</u> )
<del>F</del>	Fluorine ( <u>F</u> )
<u>N</u>	Argon ( <u>Ar</u> )
<u>M</u>	Magnesium ( <u>Mg</u> )
<u>M</u>	Nickel ( <u>Ni</u> )

Give the total charge

$Ca_3^{2+}$	<u>+6</u>
$Ca^{2+}O^{2-}$	<u>0</u>
$Mg^{2+}F_2^{1-}$	<u>1+</u>
$Na^{1+}F_2^{1-}$	<u>0</u>
$Al^{3+}S_3^{2-}$	<u>1+</u>
$Al^{3+}O_2^{2-}$	<u>1-</u>
$O_3^{2-}$	<u>6-</u>
$Mg^{2+}(NO_3)^{1-}$	<u>1+</u>

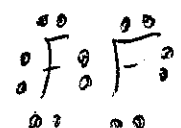
Write the balanced ionic compounds for the following:

$Li^{2+}$ and $O^{2-}$ : <u><math>Li_2O</math></u>	$K^{1+}$ and $S^{2-}$ : <u><math>K_2S</math></u>
$Na^{1+}$ and $N^{3-}$ : <u><math>Na_3N</math></u>	$Li^{1+}$ and $F^{1-}$ : <u><math>LiF</math></u>
$Al^{3+}$ and $O^{2-}$ : <u><math>Al_2O_3</math></u>	$Ca^{2+}$ and $P^{3-}$ : <u><math>Ca_3P_2</math></u>
$Mg^{2+}$ and $Cl^{1-}$ : <u><math>MgCl_2</math></u>	$Al^{3+}$ and $(NO_3)^{1-}$ : <u><math>Al(NO_3)_3</math></u>

Write the balanced ionic formulas for the following:

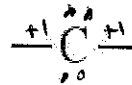
$Li^{2+}$ and $Cl^{1-}$ : <u><math>LiCl</math></u>
$Mg^{2+}$ and $O^{2-}$ : <u><math>MgO</math></u>
$Al^{3+}$ and $S^{2-}$ : <u><math>Al_2S_3</math></u>
$Mg^{2+}$ and $N^{3-}$ : <u><math>Mg_3N_2</math></u>
$K^{1+}$ and $(CrO_4)^{2-}$ : <u>We didn't cover this in class</u>

Draw the Lewis Dot Diagram for molecular Fluorine ( $F_2$ ).




Short hand

$F-F$



# of electrons: 6



# of electrons: 8

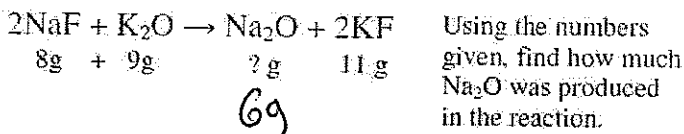
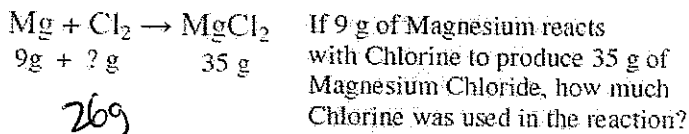
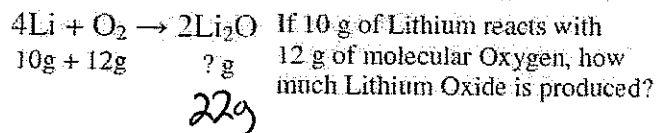
Using shorthand, make Oxygen Dichloride

$Cl-O-Cl$

Name: \_\_\_\_\_

Period: \_\_\_\_\_

- |                                    |   |   |
|------------------------------------|---|---|
| 1. Molecular Mass                  | C | When the reactants equal the products.              |
| 2. Closed System                   | B | When the reaction is closed and gases can't escape. |
| 3. The Law of Conservation of Mass | A | How heavy a compound or molecule is.                |
| 4. Open System                     | D | When gases aren't caught by the experimental setup. |
| 5. Atomic Mass                     | F | In a closed reaction mass cannot be lost.           |
| 6. Balanced Reaction               | E | The decimal numbers on the periodic table.          |



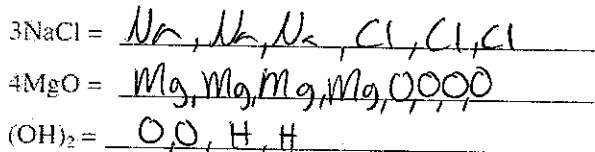
Write the following reaction, being sure to use the correct ionic formulas (balanced ionic compounds).  
 "Magnesium Bromide reacts with Lithium Oxide to produce Magnesium Oxide and Lithium Bromide"

$\text{Mg}^{2+} \text{Br}^- \quad \text{Li}^+ \text{O}^{2-} \quad \text{Mg}^{2+} \text{O}^{2-} \quad \text{Li}^+ \text{Br}^-$

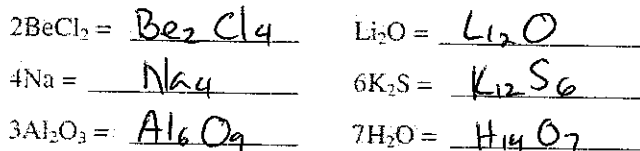
$\text{MgBr}_2 + \text{Li}_2\text{O} \rightarrow \text{MgO} + \text{LiBr}$

Why do we balance chemical reactions?  
 To prove the law of conservation of Matter (mass)

Expand out these compounds.



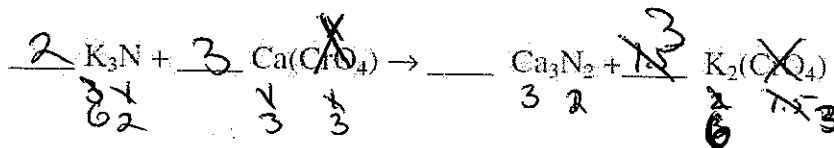
Write the following in reaction notation.



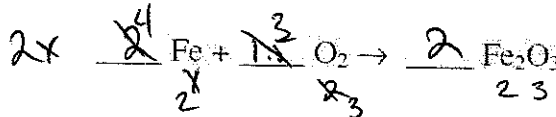
Type of Reaction

Balance these reactions:

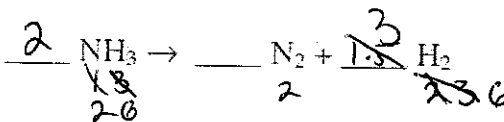
Double Displacement



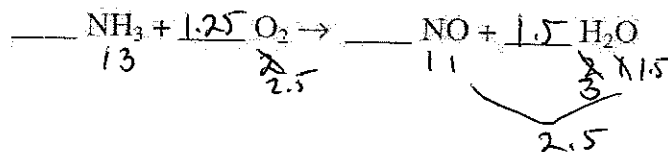
Addition or Synthesis



Decomposition



Combustion



Single Displacement

