

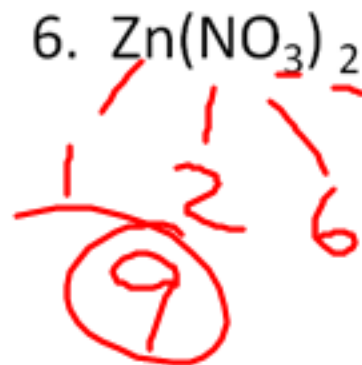
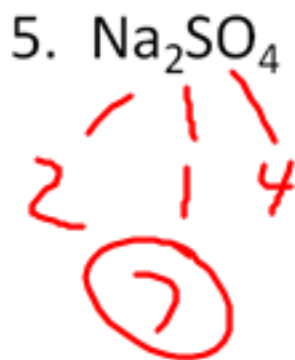
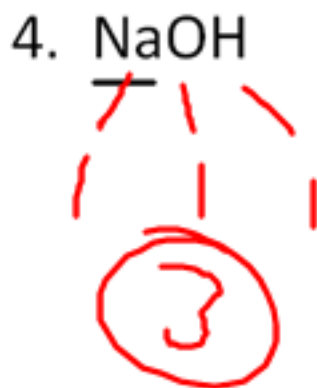
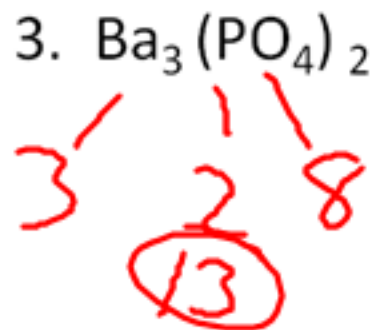
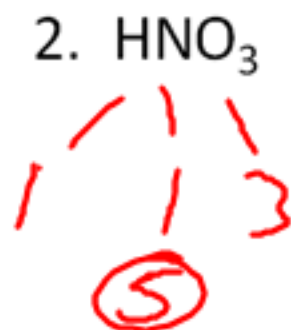
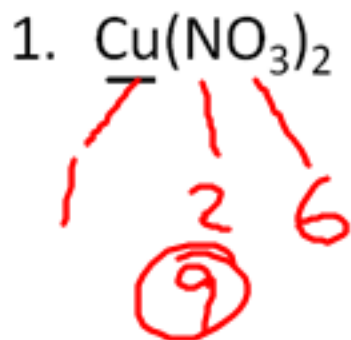
Day 11

Counting Atoms,
Naming/Forming Compounds,
Chemical Reactions

Keys to Naming Compounds

- Each element will begin with a capital letter.
- The subscript(that follows some elements) tells you how many atoms of that element there are.

C - Name each element in the compound below, tell how
N - many atoms of each element there are, and tell how
O - many total atoms are in the compound!!!!



Naming Compounds:

- Remember there is a list of “polyatomic ions” on the formula sheet!!

- Naming Compounds:

- Name the metal

(or NH_4^+ - ammonium)

- If compound consists of the plain non-metal, name ends in “ide”.

- Chlorine becomes chloride
- Bromine becomes bromide, etc.

- If compound contains a polyatomic ion, name ends with the polyatomic ion name.

Name the compounds:

1. NaCl Sodium Chloride

2. CaO Calcium Oxide

3. KF Potassium Fluoride

4. Na₂S Sodium Sulfide

Name the compounds:

5. CaI_2 Calcium Iodide

6. AlF_3 Aluminum Fluoride

7. MgCO_3 Magnesium Carbonate

8. $\text{NaC}_2\text{H}_3\text{O}_2$ Sodium Acetate

Name the compounds:

9. CaSO_4 Calcium Sulfate

10. $(\text{NH}_4)_2\text{O}$ Ammonium Oxide

11. Na_2CrO_4 Sodium Chromate

12. $\text{Ca}(\text{ClO}_3)_2$ Calcium Chlorate

Name the compounds:

13. $\text{Al}_2(\text{CO}_3)_3$ Aluminum Carbonate

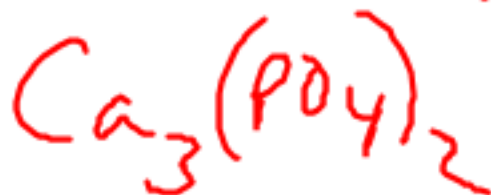
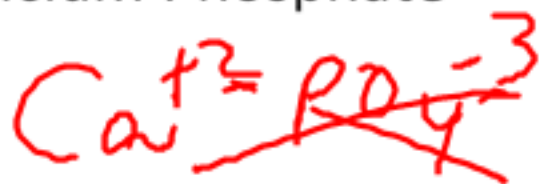
14. $(\text{NH}_4)_2\text{CrO}_4$ Ammonium Chromate

Writing Formulas:

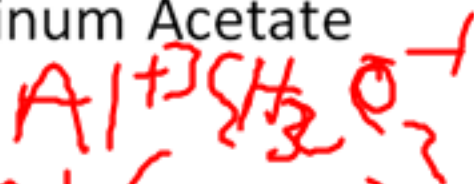
1. Write the oxidation #'s of the metal and nonmetal(or polyatomic ions) as superscripts above the element.
2. If oxidation #'s are the same, do NOTHING. Just write down the letters.
3. If oxidation #'s are different, cross the numbers and write them down.
4. If you must write a number outside of the polyatomic ion, then you must put parantheses around the polyatomic and then write the subscript.

Write Formulas:

a) Calcium Phosphate

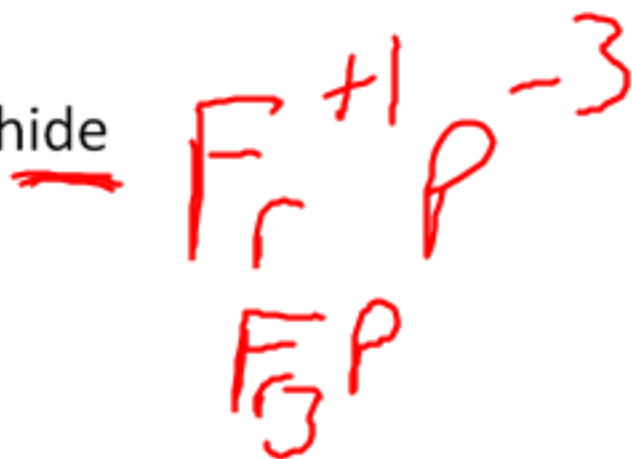


b) Aluminum Acetate



Write Formulas:

c) Francium Phosphide

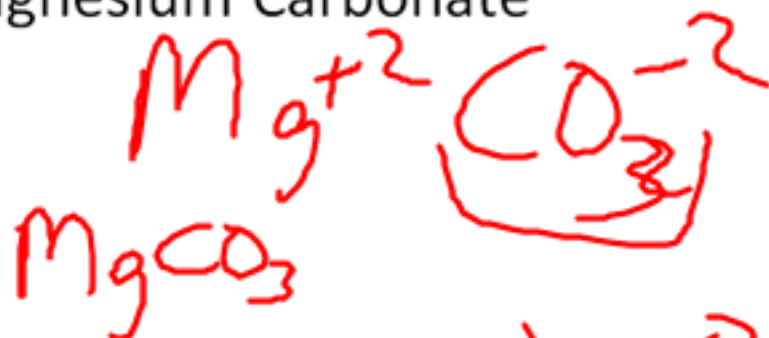


d) Potassium Nitride

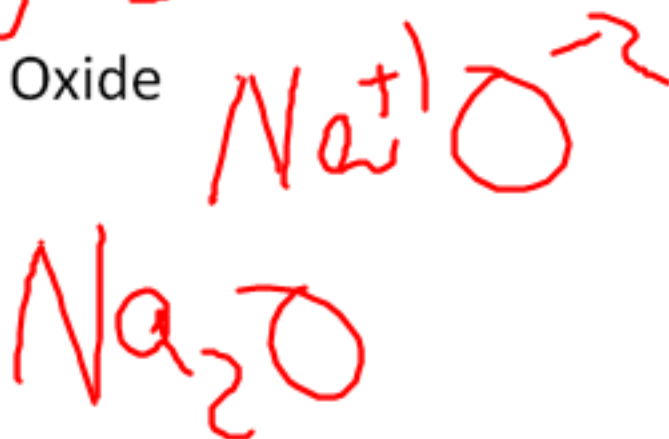


Write Formulas:

e) Magnesium Carbonate

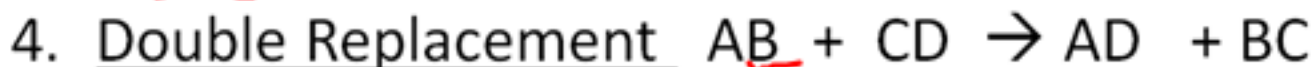


f) Sodium Oxide



Chemical Equations:

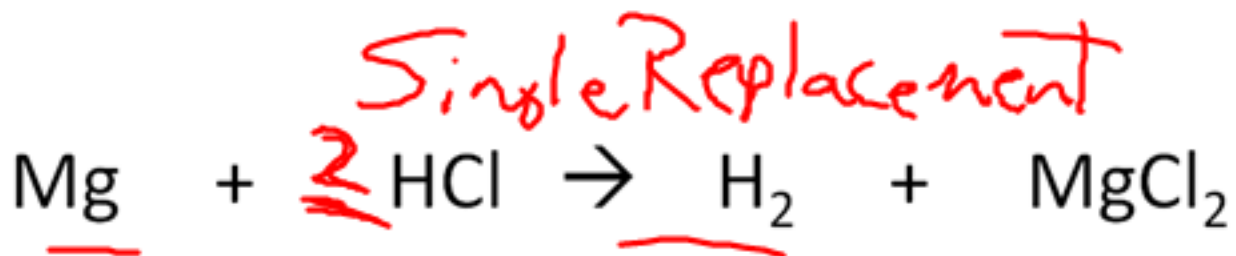
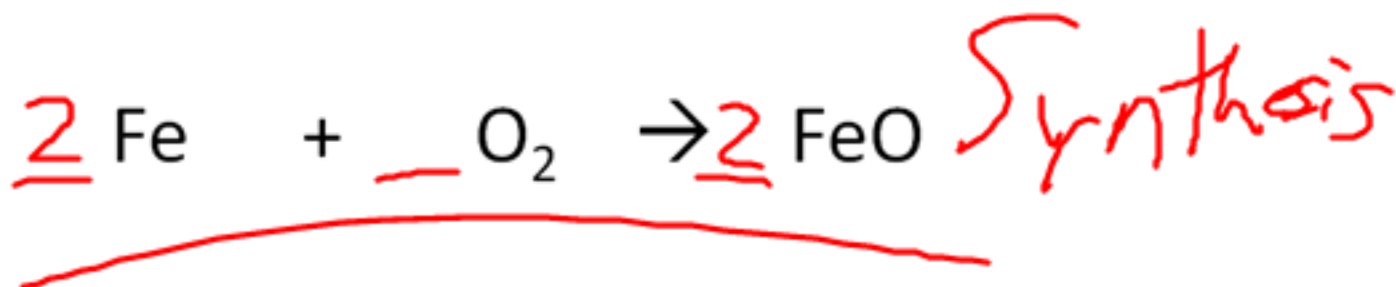
- Reactants “yield” Products
- Reactants \longrightarrow Products
- Must know the 4 types of chemical reactions:



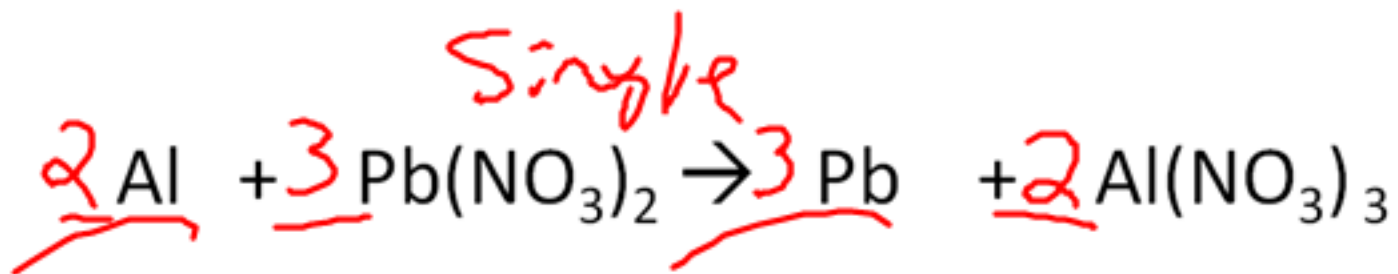
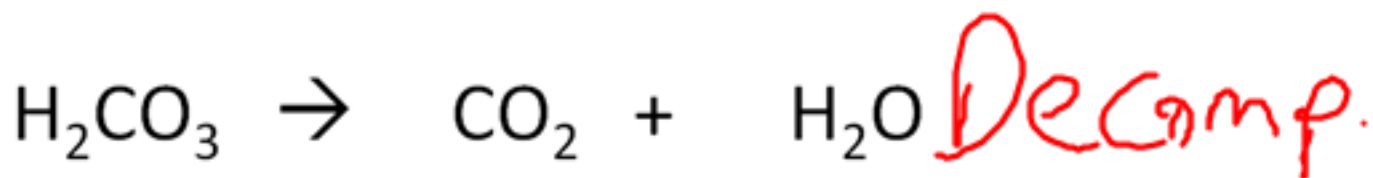
Balancing Equations:

- It's all about counting atoms!!!
- The number of atoms of each element in the reactants must equal the number of atoms in the products.

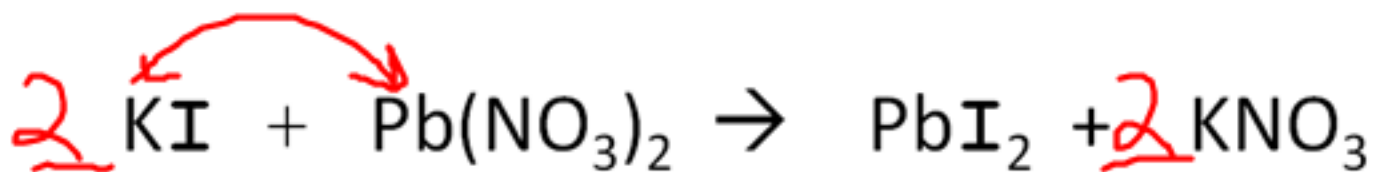
Balance these equations and tell which type of reaction is shown:



Balance these equations and tell which type of reaction is shown:



Balance these equations and tell which type of reaction is shown:



Double Rep