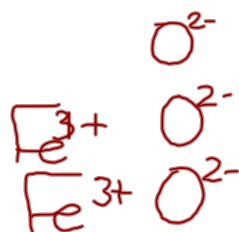


## Check Homework #1-4

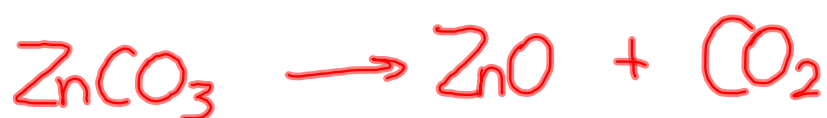


2.a) iron + oxygen  $\rightarrow$  iron(III)oxide



synthesis

$\text{Zn}^{2+} \text{CO}_3^{2-}$   $\text{Zn}^{2+} \text{O}^{2-}$   
d) zinc carbonate  $\rightarrow$  zinc oxide + carbon dioxide



decomp.

## Reactions so far...

### Combustion

element/compound + O<sub>2</sub> ⇒ oxides + energy



### Synthesis

two smaller particles (elements) ⇒ one molecule



### Decomposition

one molecule ⇒ smaller particles (elements)



# Single Replacement Reactions

(displacement)

Single replacement reactions are chemical changes that involve an element and a compound as reactants.



⇒ a metal displaces a metal, or a nonmetal displaces a nonmetal.

Ex. silver + magnesium chloride ⇒ magnesium + silver chloride



Ex. bromine + calcium iodide ⇒ iodine + calcium bromide



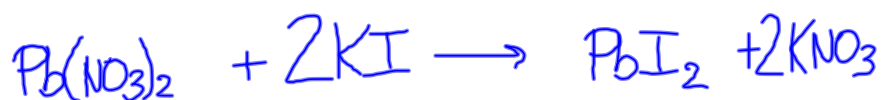
## Double Replacement Reactions

Double replacement reactions are chemical changes that involve **two compounds** as reactants.

⇒ metals (or nonmetals) will 'trade'

Ex.  $\text{Pb}^{2+}$   $\text{NO}_3^-$   $\text{NO}_3^-$   $\text{K}^+$   $\text{I}^-$   
Ex. lead (II) nitrate + potassium iodide ⇒

lead(II)iodide + potassium nitrate



Write a balanced chemical equation for the following word equation:

