

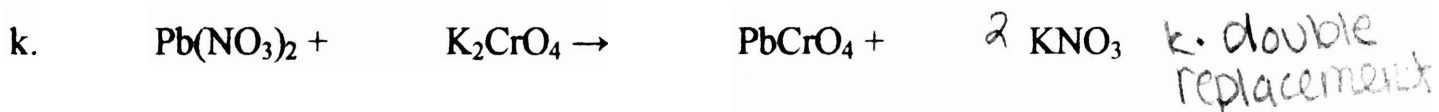
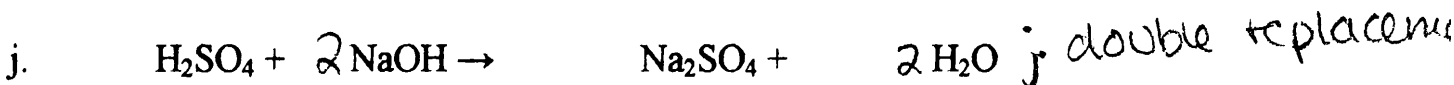
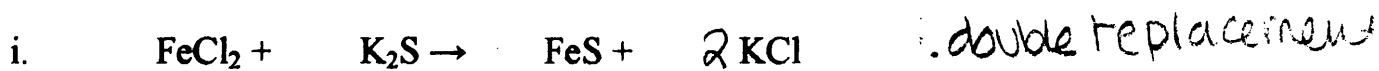
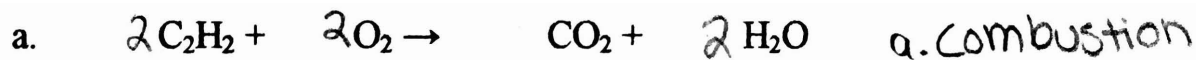
Practice Sheet # 20
Types of Reactions



1) Determine whether each of the following equations is a

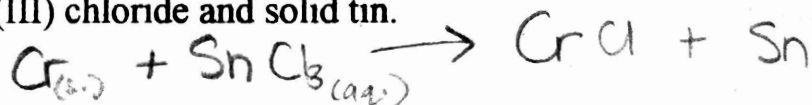
Synthesis
Decomposition
Combustion
Single Replacement
Double Replacement

2) BALANCE each reaction!!



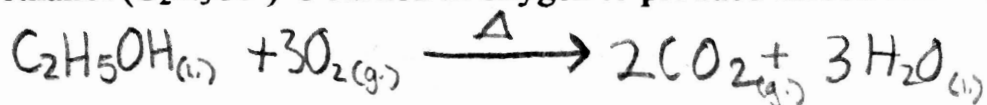
Write balanced chemical equations for the following reactions. Be sure to include state symbols when appropriate. Identify the **TYPE of REACTION**.

Solid chromium metal is placed in an aqueous solution of tin (IV) chloride and reacts to form aqueous chromium (III) chloride and solid tin.



single replacement

Liquid ethanol ($\text{C}_2\text{H}_5\text{OH}$) is burned in oxygen to produce carbon dioxide and water.



combustion

Calcium carbonate decomposes into carbon dioxide and calcium oxide.



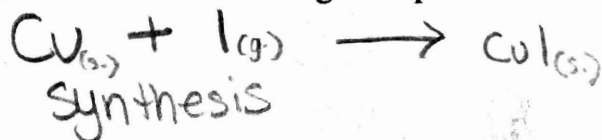
decomposition

Aqueous sodium phosphate is added to a solution of aqueous aluminum nitrate producing solid aluminum phosphate and aqueous sodium nitrate.



double replacement

Copper metal reacts with iodine gas to produce solid copper (I) iodide.



synthesis

Practice Sheet # 20
Types of Reactions



1) Determine whether each of the following equations is a

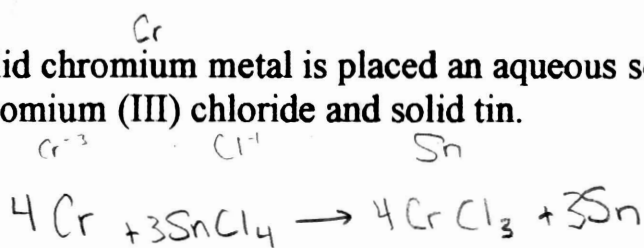
Synthesis
Decomposition
Combustion
Single Replacement
Double Replacement

2) BALANCE each reaction!!

- a. $2 \text{C}_2\text{H}_2 + 6 \text{O}_2 \rightarrow 4 \text{CO}_2 + 2 \text{H}_2\text{O}$
combustion
- b. $\text{Zn} + \text{CuSO}_4 \rightarrow \text{ZnSO}_4 + \text{Cu}$
single replacement
- c. $\text{Cl}_2 + 2 \text{KI} \rightarrow 2 \text{KCl} + \text{I}_2$
synthesis
- d. $2 \text{H}_2\text{O}_2 \rightarrow 2 \text{H}_2\text{O} + \text{O}_2$
decomposition
- e. $\text{MgCl}_2 \rightarrow \text{Mg} + \text{Cl}_2$
decomposition
- f. $\text{Fe} + \text{I}_2 \rightarrow \text{FeI}_2$
synthesis
- g. $10 \text{Cu} + \text{S}_8 \rightarrow 8 \text{Cu}_2\text{S}$
synthesis
- h. $\text{C}_6\text{H}_{12}\text{O}_6 + 6 \text{O}_2 \rightarrow 6 \text{CO}_2 + 10 \text{H}_2\text{O}$
combustion
- i. $\text{FeCl}_2 + \text{K}_2\text{S} \rightarrow \text{FeS} + 2 \text{KCl}$
double replacement
- j. $\text{H}_2\text{SO}_4 + 2 \text{NaOH} \rightarrow \text{Na}_2\text{SO}_4 + 2 \text{H}_2\text{O}$
double replacement
- k. $\text{Pb}(\text{NO}_3)_2 + \text{K}_2\text{CrO}_4 \rightarrow \text{PbCrO}_4 + 2 \text{KNO}_3$
double replacement

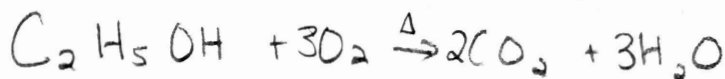
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Solid chromium metal is placed in an aqueous solution of tin (IV) chloride and reacts to form aqueous chromium (III) chloride and solid tin.

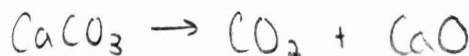


Single replacement

Liquid ethanol ($\text{C}_2\text{H}_5\text{OH}$) is burned in oxygen to produce carbon dioxide and water.

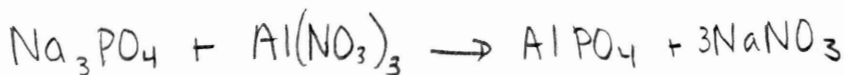


Calcium carbonate decomposed into carbon dioxide and calcium oxide.



decomposition

Aqueous sodium phosphate is added to a solution of aqueous aluminum nitrate producing solid aluminum phosphate and aqueous sodium nitrate.



double replacement

Copper metal reacts with iodine gas to produce solid copper (I) iodide.



Synthesis