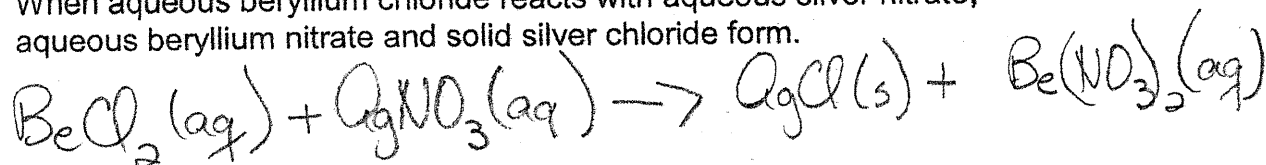


Word Equations Worksheet

Write the chemical equations for each of the reactions described below:

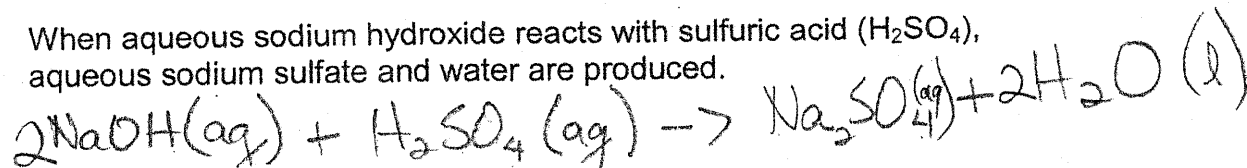
- 1) When aqueous beryllium chloride reacts with aqueous silver nitrate, aqueous beryllium nitrate and solid silver chloride form.



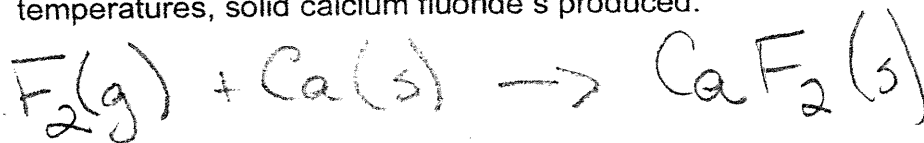
- 2) When iso-propanol ($\text{C}_3\text{H}_8\text{O}$) burns in oxygen, carbon dioxide and water are produced.



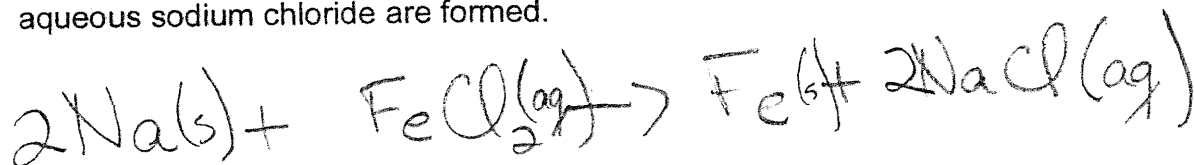
- 3) When aqueous sodium hydroxide reacts with sulfuric acid (H_2SO_4), aqueous sodium sulfate and water are produced.



- 4) When fluorine gas comes in contact with calcium metal at high temperatures, solid calcium fluoride is produced.

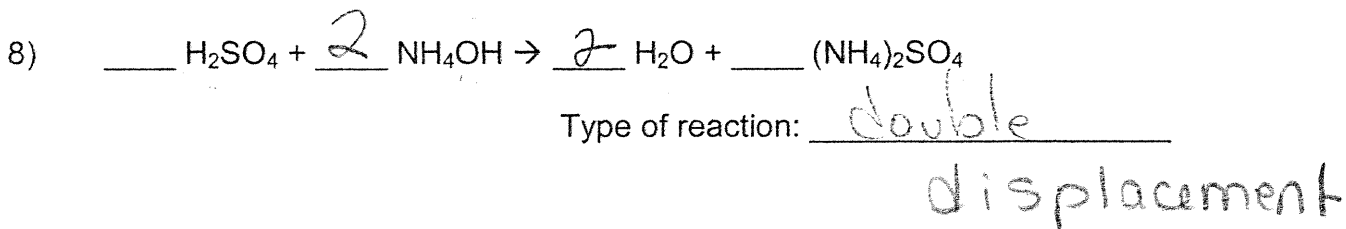
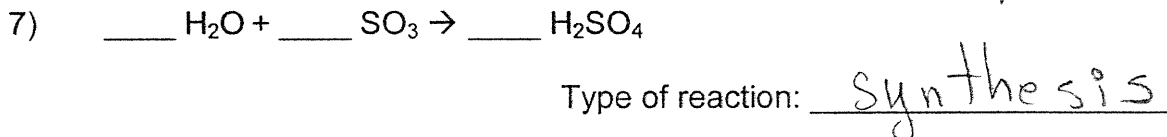
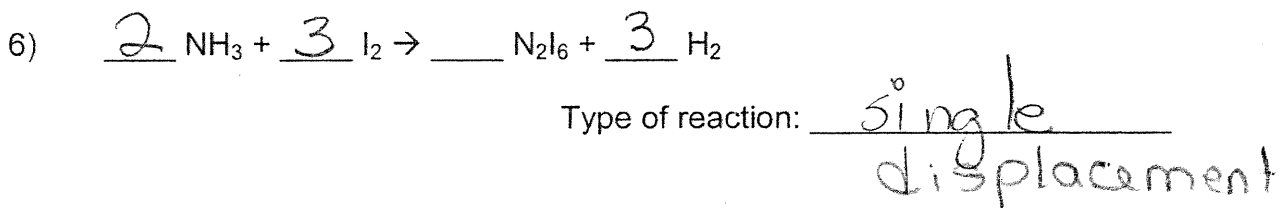
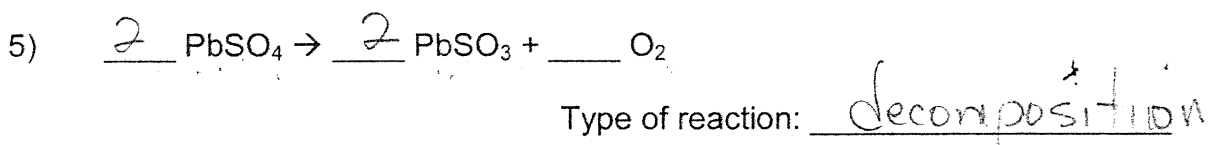
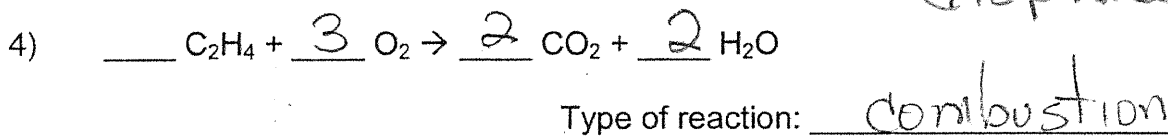
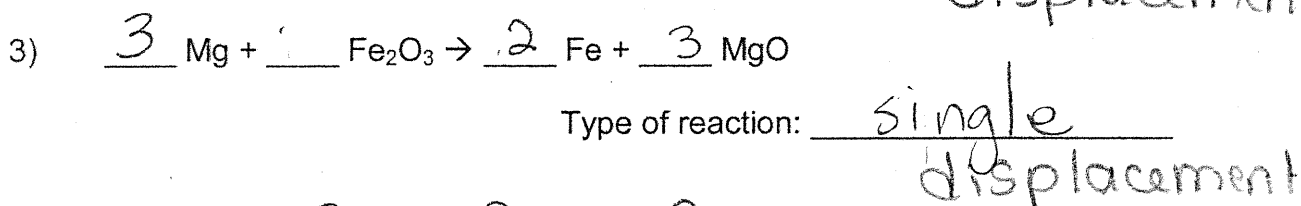
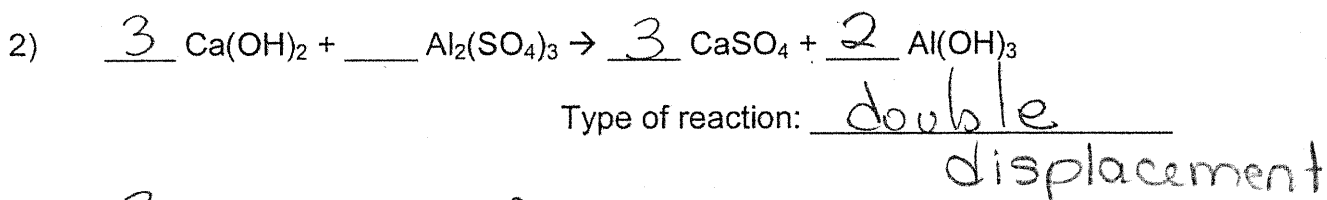
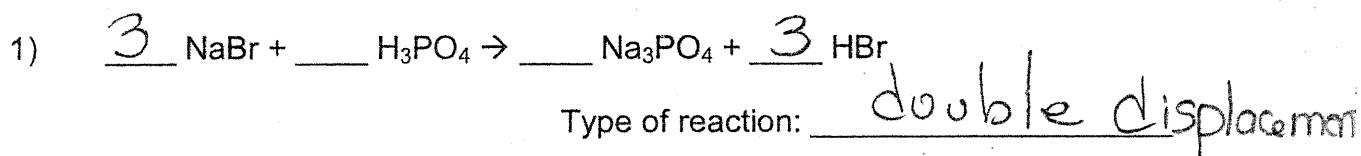


- 5) When sodium metal reacts with aqueous iron (II) chloride, iron metal and aqueous sodium chloride are formed.



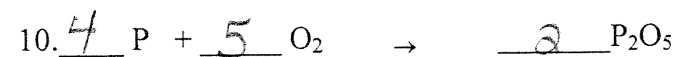
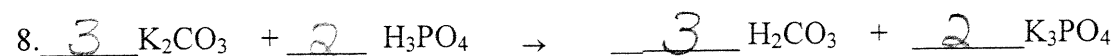
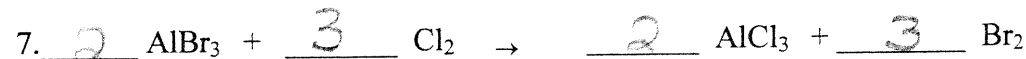
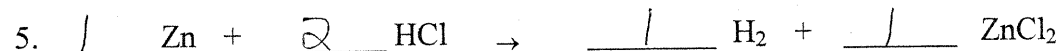
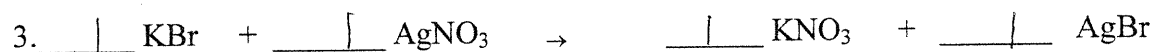
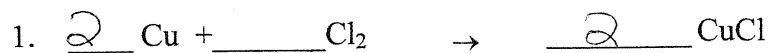
Types of Reactions Worksheet

Balance the following equations and indicate the type of reaction taking place:

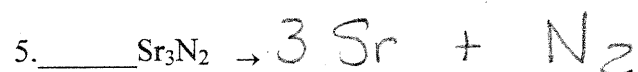
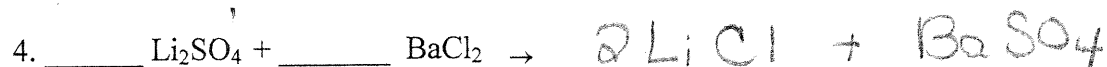
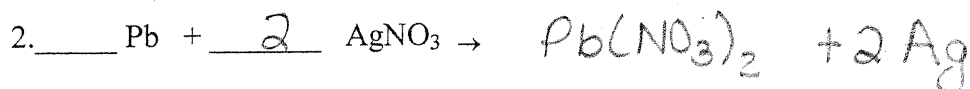


Practice Set- Balancing Reactions

Section I - Place the appropriate coefficient on the line in front of each species to balance each equation and then under each equation identify the reaction type.



Section II - Predict the product(s) and balance the chemical equation



Section III - On a separate sheet of paper, write a balanced equation for the following reactions and classify the type of reaction.

- Aluminum metal reacts with oxygen (in the air) to form aluminum oxide.
- Sodium oxide reacts with carbon dioxide to form sodium carbonate.
- Calcium metal reacts with water to form calcium hydroxide and hydrogen gas.
- Potassium nitrate decomposes to form potassium nitrite and oxygen.
- Barium metal reacts with Iron (III) sulfate to produce barium sulfate and iron metal.
- Barium chloride reacts with sodium sulfate to produce barium sulfate and sodium chloride.
- Bismuth (III) oxide and zinc metal react to produce zinc (II) oxide and bismuth metal.
- Calcium metal reacts with phosphorus to produce calcium phosphide.
- The combustion of decane forms water and carbon dioxide.
- A solution of hydrochloric acid reacts with solid calcium bicarbonate to produce water, carbon dioxide, and calcium chloride. (Note: Carbonic acid decomposes to form the water and carbon dioxide)
- A solution of acetic acid reacts with solid iron (II) hydroxide

Do you feel like an expert now?



synthesis



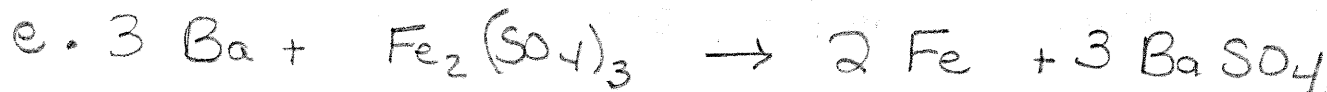
synthesis



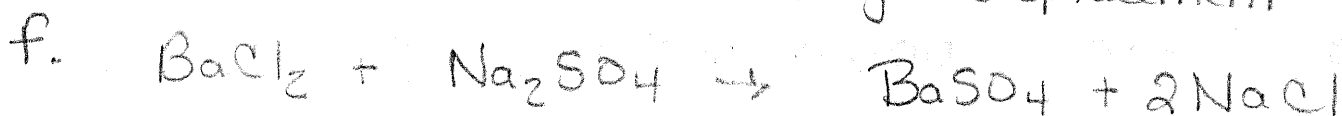
single displacement



decomposition



single displacement



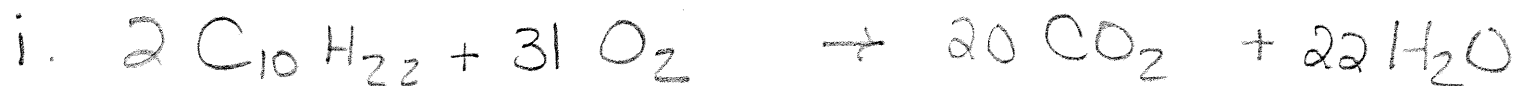
double displacement



single displacement



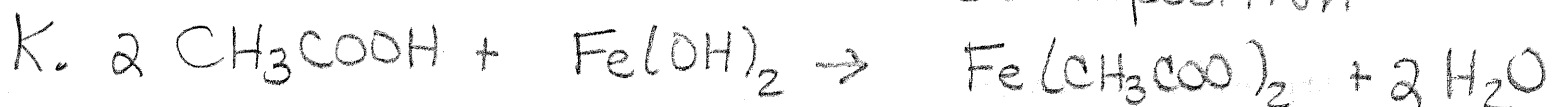
synthesis



combustion



decomposition



double displacement

Solutions for the Balancing Equations Practice Worksheet

- 1) $2 \text{NaNO}_3 + \text{PbO} \rightarrow \text{Pb}(\text{NO}_3)_2 + \text{Na}_2\text{O}$
- 2) $6 \text{AgI} + \text{Fe}_2(\text{CO}_3)_3 \rightarrow 2 \text{FeI}_3 + 3 \text{Ag}_2\text{CO}_3$
- 3) $\text{C}_2\text{H}_4\text{O}_2 + 2 \text{O}_2 \rightarrow 2 \text{CO}_2 + 2 \text{H}_2\text{O}$
- 4) $\text{ZnSO}_4 + \text{Li}_2\text{CO}_3 \rightarrow \text{ZnCO}_3 + \text{Li}_2\text{SO}_4$
- 5) $\text{V}_2\text{O}_5 + 5 \text{CaS} \rightarrow 5 \text{CaO} + \text{V}_2\text{S}_5$
- 6) $\text{Mn}(\text{NO}_2)_2 + \text{BeCl}_2 \rightarrow \text{Be}(\text{NO}_2)_2 + \text{MnCl}_2$
- 7) $3 \text{AgBr} + \text{GaPO}_4 \rightarrow \text{Ag}_3\text{PO}_4 + \text{GaBr}_3$
- 8) $3 \text{H}_2\text{SO}_4 + 2 \text{B}(\text{OH})_3 \rightarrow \text{B}_2(\text{SO}_4)_3 + 6 \text{H}_2\text{O}$
- 9) $\text{S}_8 + 8 \text{O}_2 \rightarrow 8 \text{SO}_2$
- 10) $\text{Fe} + 2 \text{AgNO}_3 \rightarrow \text{Fe}(\text{NO}_3)_2 + 2 \text{Ag}$