

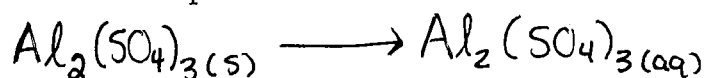
Huge Reactions Review

Write balanced chemical equations for each word equation. Include phase symbols for all formulas.

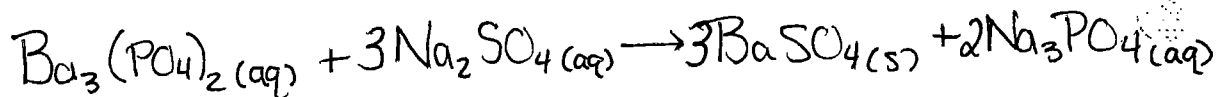
1. Solid sodium oxide dissolves in water to make sodium oxide solution.



Solid aluminum sulphate dissolves in water to make a solution

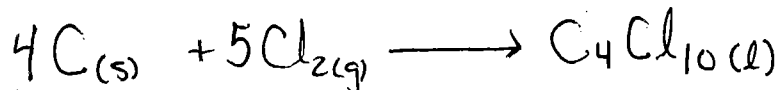


Barium phosphate plus sodium sulphate (both in water) yields solid barium sulphate and aqueous sodium phosphate.

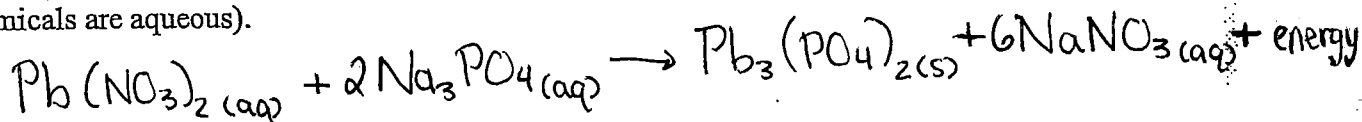


Write a balanced equation including phase symbols.

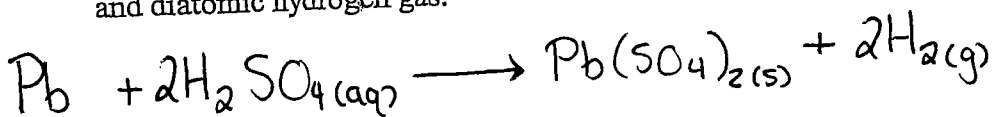
Solid carbon reacts with chlorine gas to produce liquid tetracarbon decachloride.



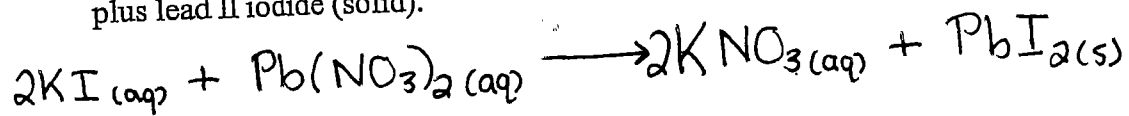
Lead II nitrate reacting with sodium phosphate to produce solid Lead II phosphate and sodium nitrate (exothermic and three chemicals are aqueous).



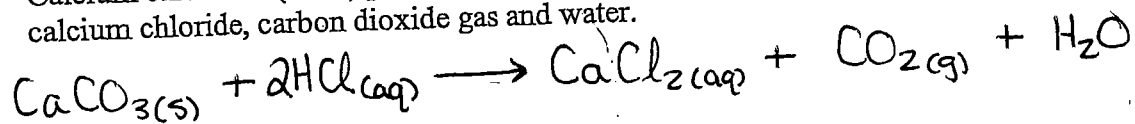
Lead metal added to Sulphuric acid solution produces lead IV sulphate precipitate and diatomic hydrogen gas.



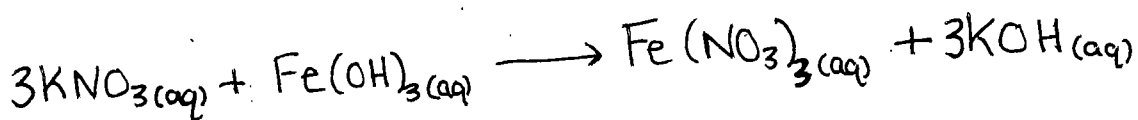
Potassium iodide (aq) plus lead II nitrate (aq) yields potassium nitrate (aqueous) plus lead II iodide (solid).



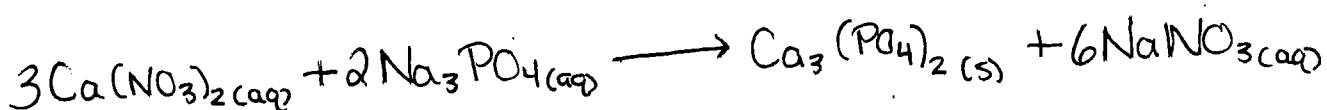
Calcium carbonate (solid) plus aqueous hydrochloric acid yields (aqueous) calcium chloride, carbon dioxide gas and water.

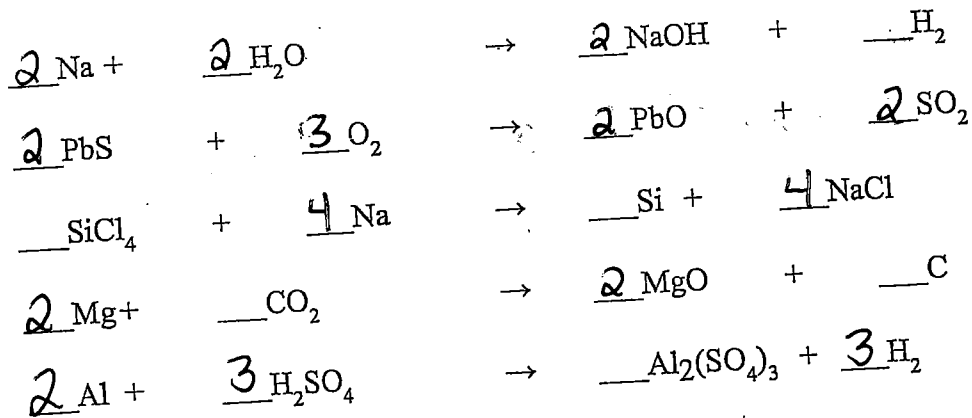


Potassium nitrate (aq) plus iron III hydroxide (aq) yields iron II nitrate (aq) plus potassium hydroxide (aq). → this should be III

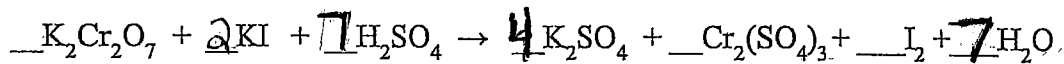
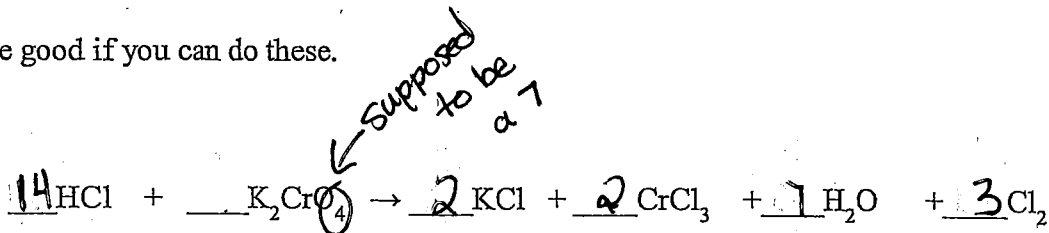


Aqueous calcium nitrate reacts with a solution of sodium phosphate producing solid calcium phosphate and aqueous sodium nitrate.

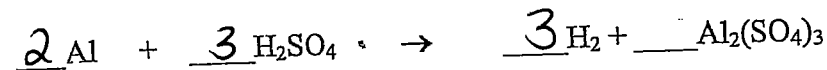
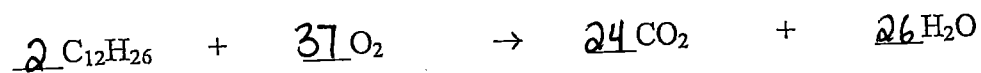
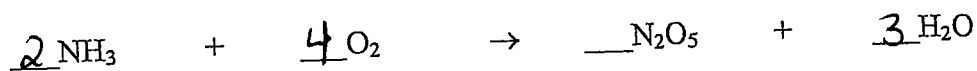
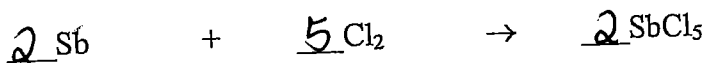




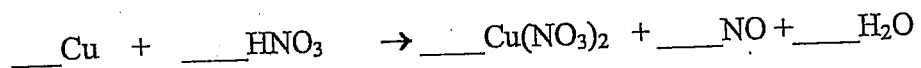
You are good if you can do these.

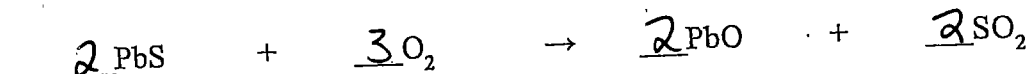
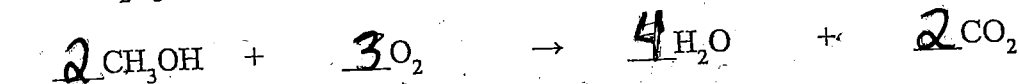
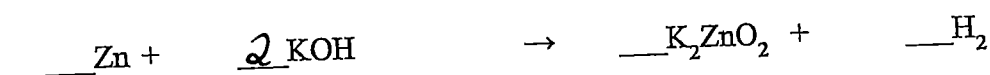
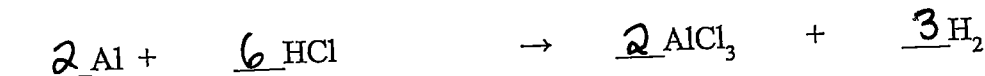
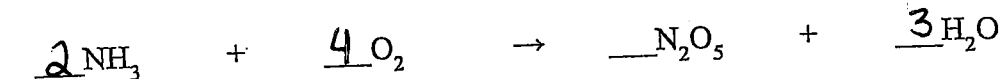
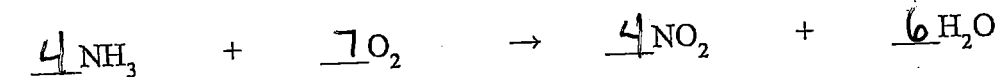
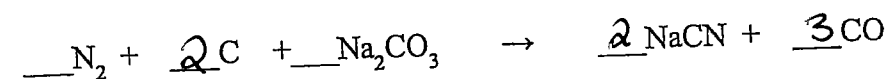
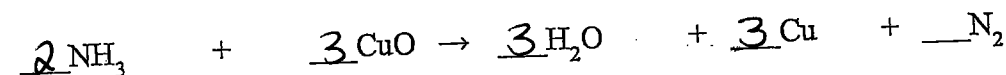
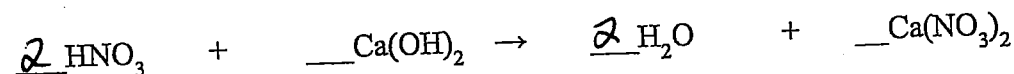
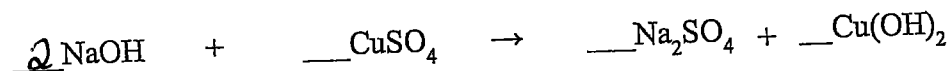
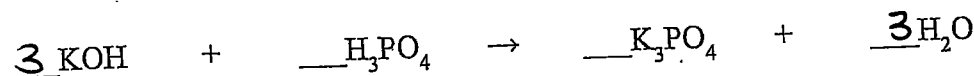
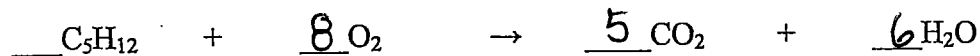
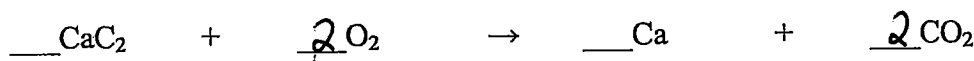


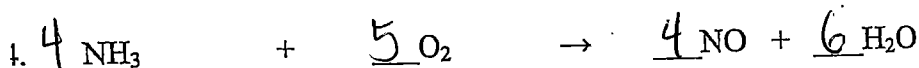
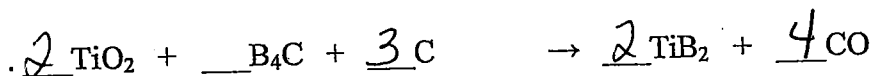
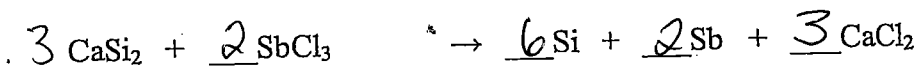
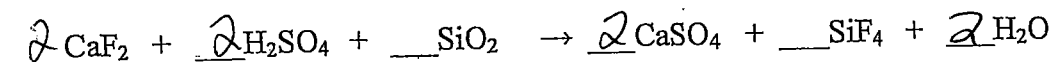
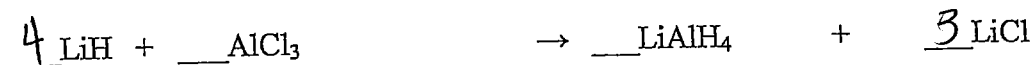
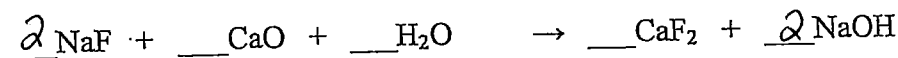
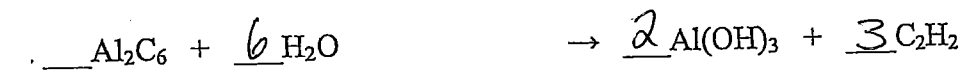
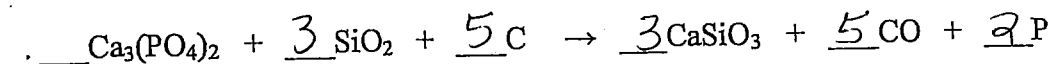
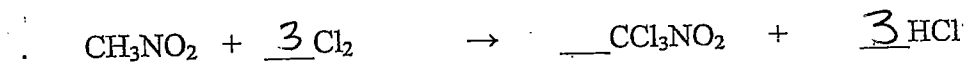
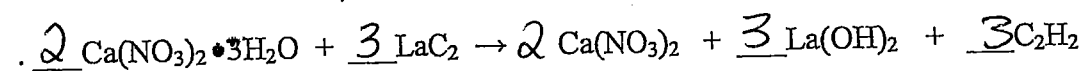
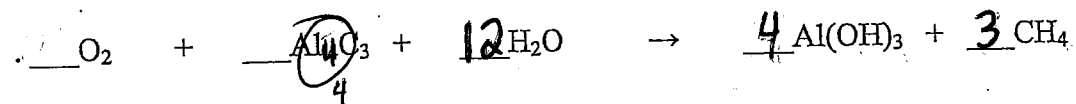
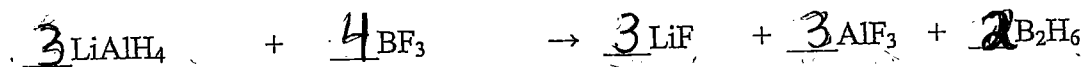
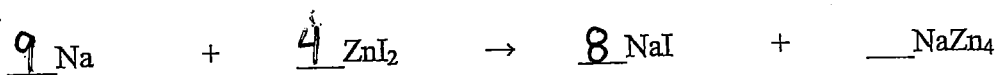
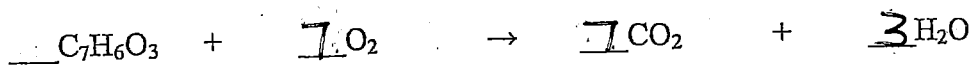
Balance each equation.

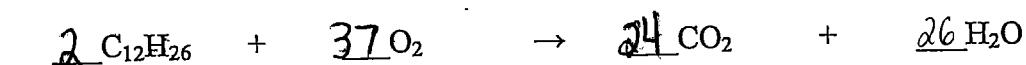
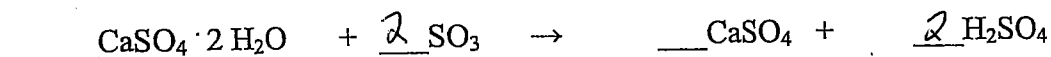
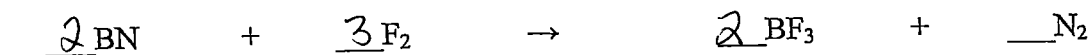
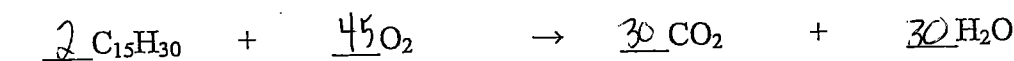
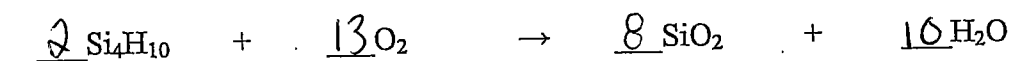
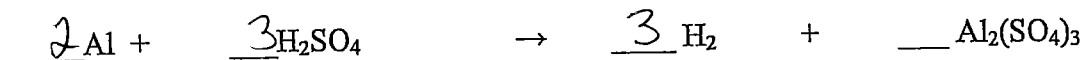
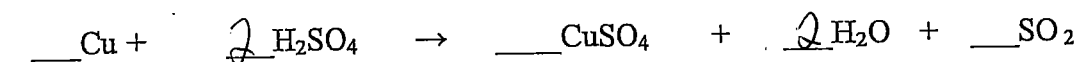
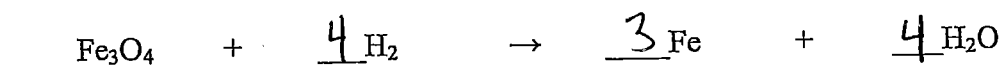
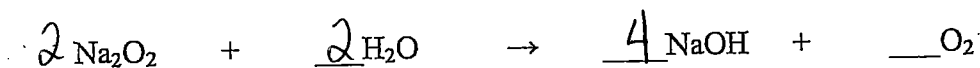
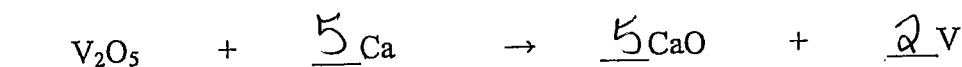
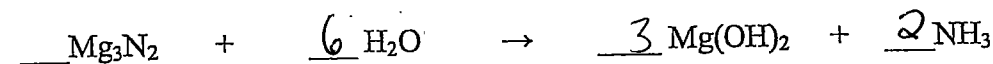
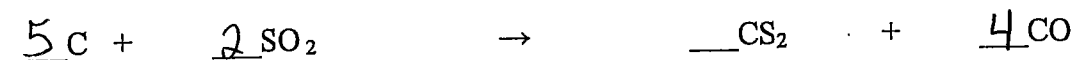
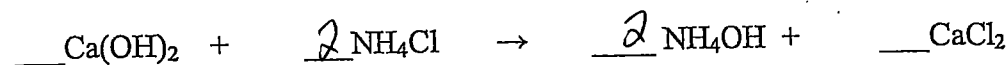
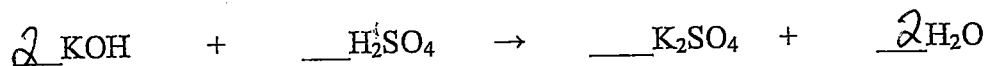
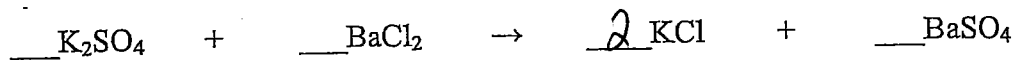


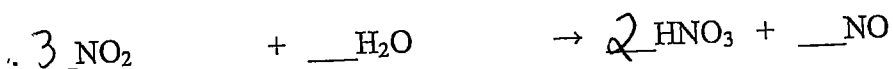
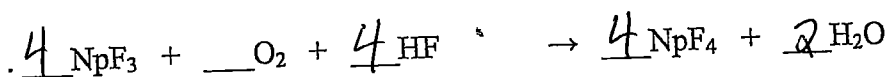
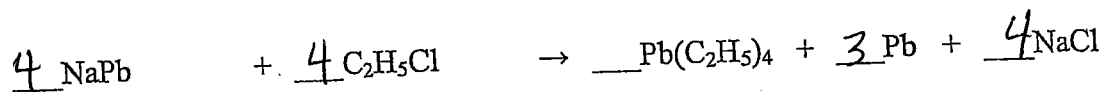
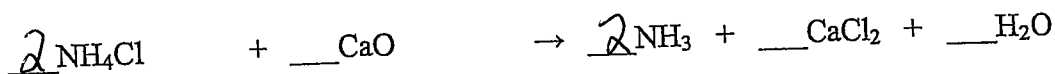
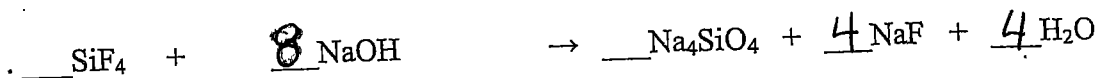
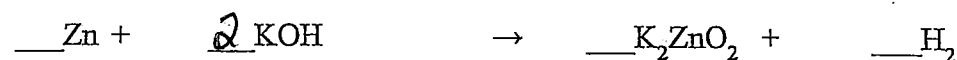
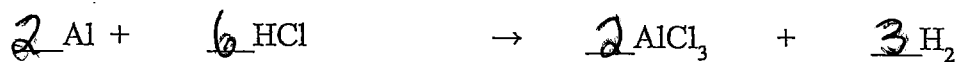
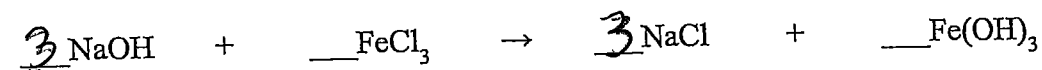
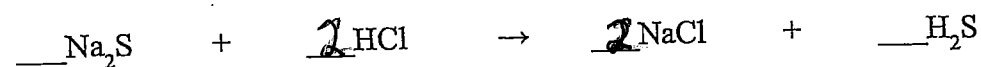
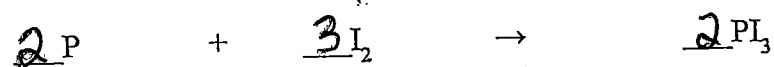
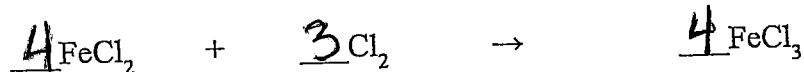
(The next one is the tough one!!)



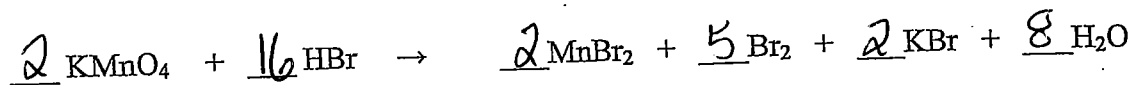
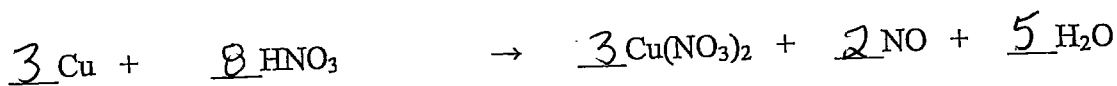
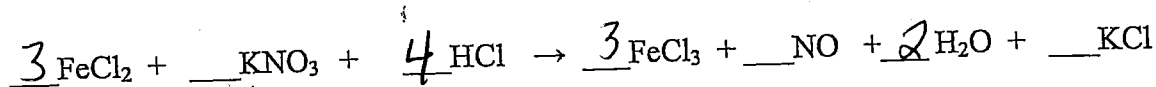




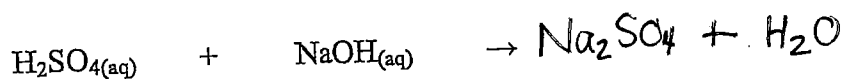
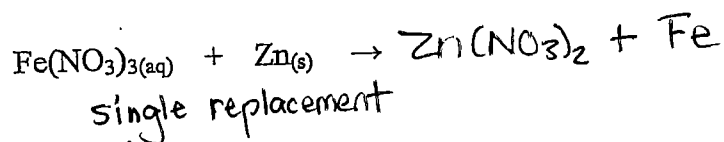
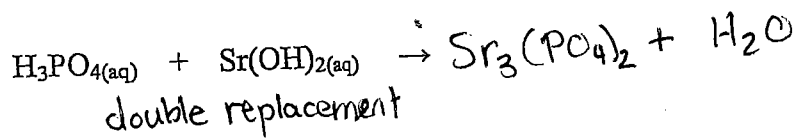
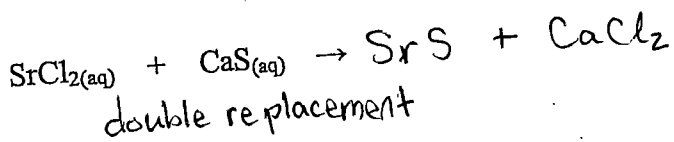
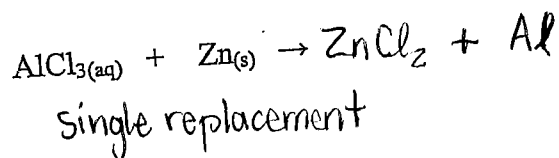


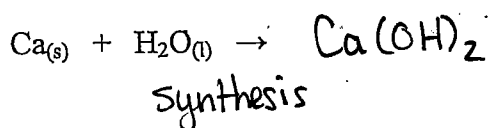
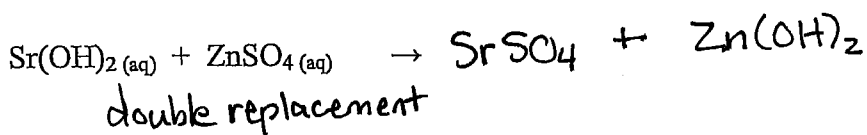
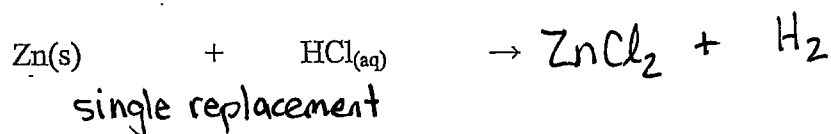
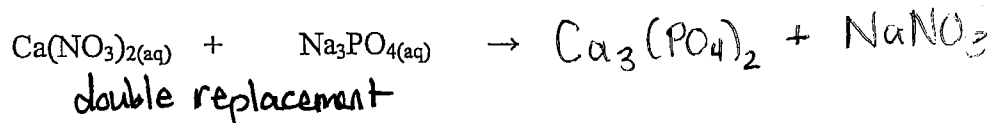
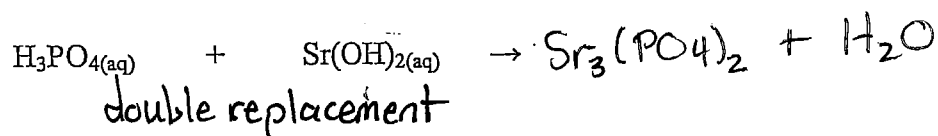


Some Tough Ones

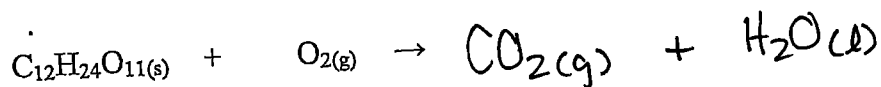
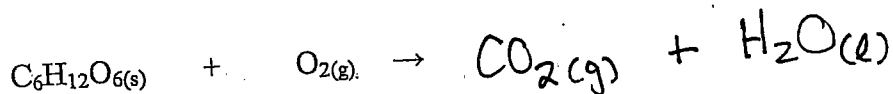
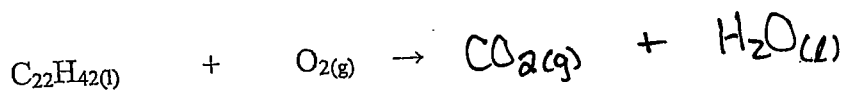
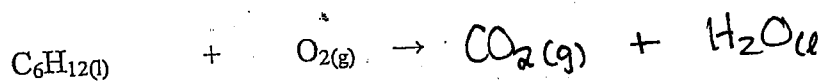
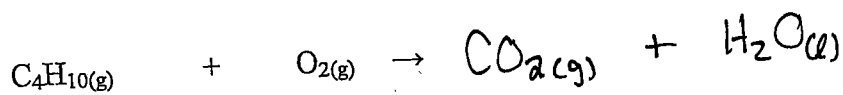


Identify the type of reaction AND predict the products that will form.

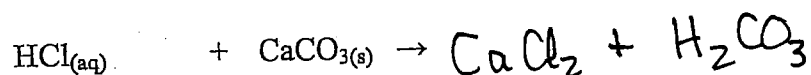
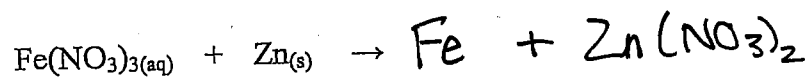
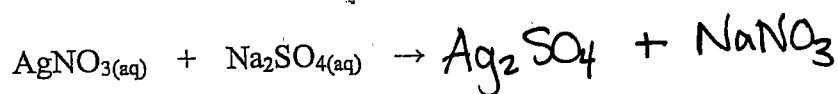
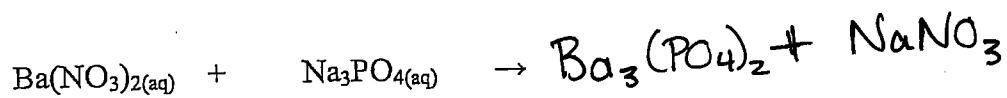
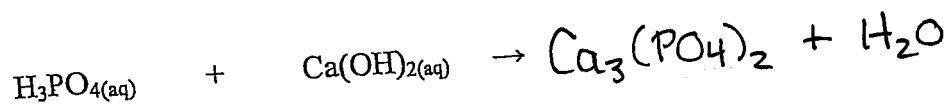
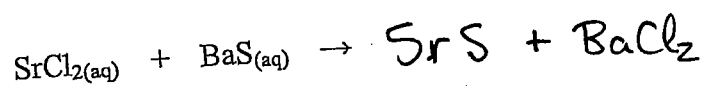
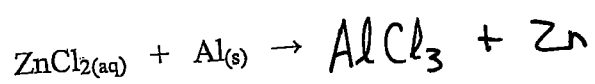
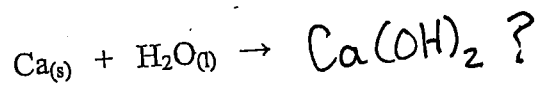




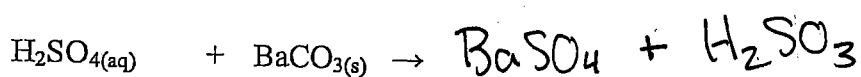
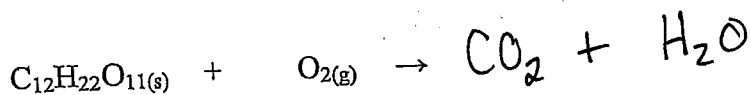
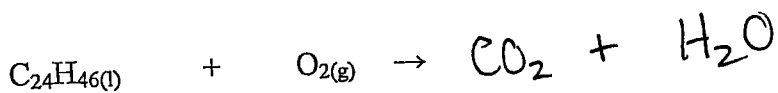
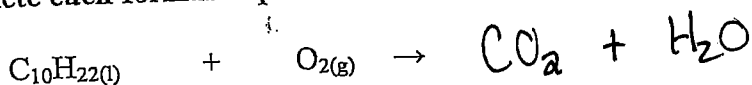
Complete the following combustion reactions. Include all phase symbols.



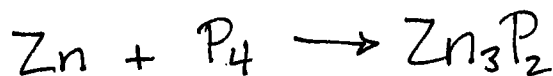
Complete. include all phase symbols, and balance each equation.



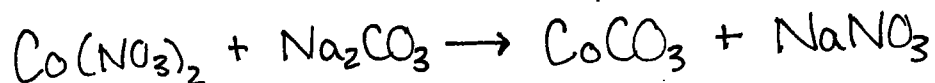
Complete each formula equation only.



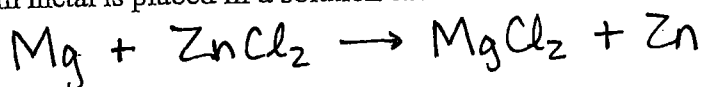
Zinc is reacted with phosphorus.



A solution of cobalt (II) nitrate is reacted with a solution of sodium carbonate.



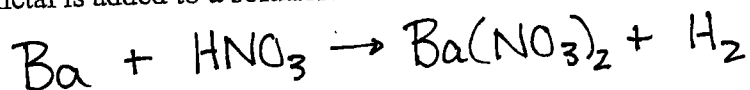
Magnesium metal is placed in a solution of zinc chloride.



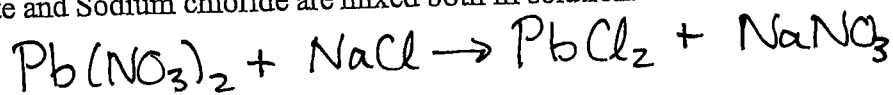
Magnesium turnings are added to a solution of lead (II) chloride.



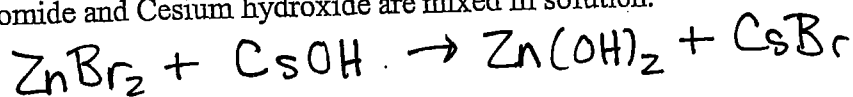
Barium metal is added to a solution of nitric acid.



Lead II nitrate and Sodium chloride are mixed both in solution.

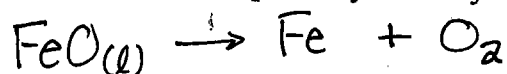


Zinc bromide and Cesium hydroxide are mixed in solution.



Zinc is reacted with phosphorus. $6\text{Zn} + \text{P}_4 \rightarrow 2\text{Zn}_3\text{P}_2$

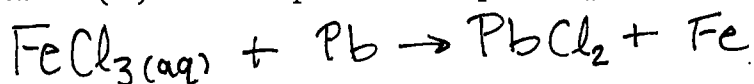
Iron (II) oxide liquid is decomposed by electrolysis.



Octane, C_8H_{18} , is burned as a fuel in cars.



A solution of iron (III) chloride is poured over a piece of platinum wire.



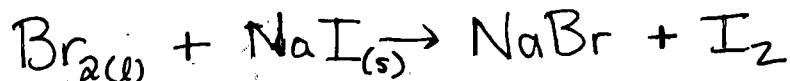
Single Replacement Reactions

Using the activity series, predict and balance the following single replacement reactions. Use abbreviations to indicate the appropriate phase of reactants and products.

A piece of copper is dropped into a container of water.



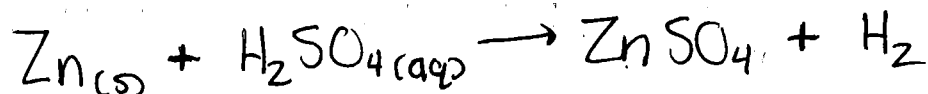
Liquid bromine is added to a container of sodium iodide crystals.



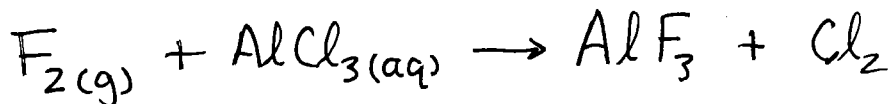
An aluminum strip is immersed in a solution of silver nitrate.



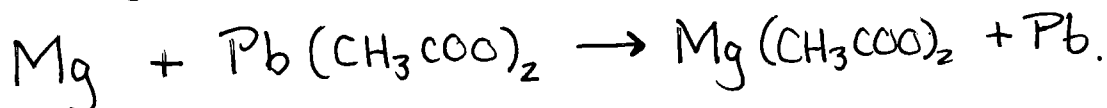
Zinc pellets are added to a sulfuric acid solution.



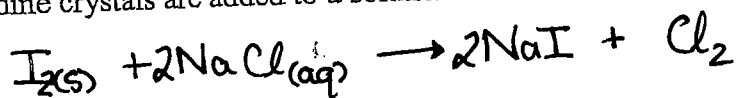
Fluorine gas is bubbled into a solution of aluminum chloride.



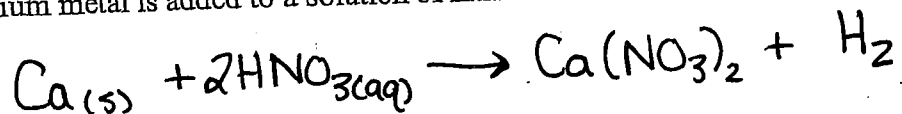
Magnesium turnings are added to a solution of lead (II) acetate.



Iodine crystals are added to a solution of sodium chloride.



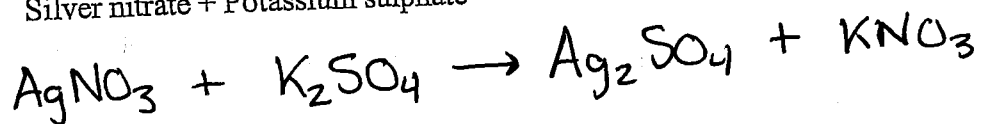
Calcium metal is added to a solution of nitric acid.



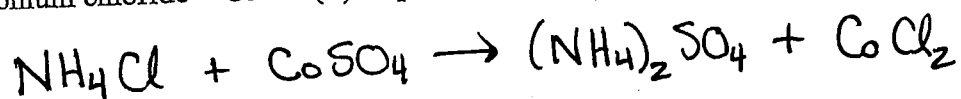
Double Replacement Reactions

Predict and balance the following Double Replacement reactions. Include all phase symbols. Use your solubility table to predict.

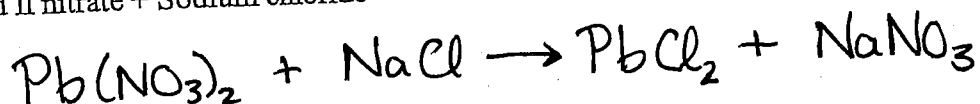
Silver nitrate + Potassium sulphate



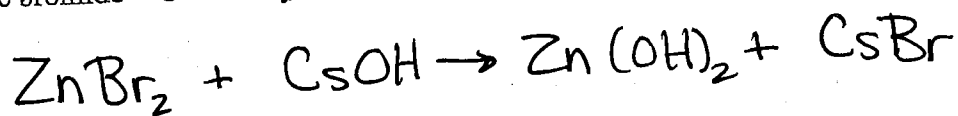
Ammonium chloride + Cobalt (II) sulphate



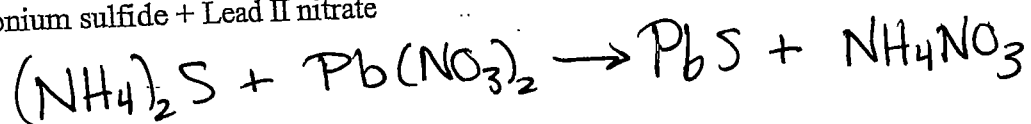
Lead II nitrate + Sodium chloride



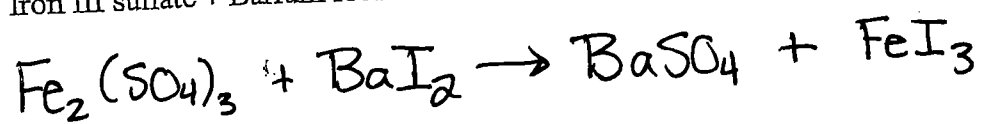
Zinc bromide + Cesium hydroxide



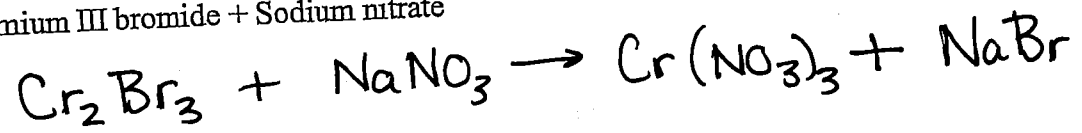
Ammonium sulfide + Lead II nitrate



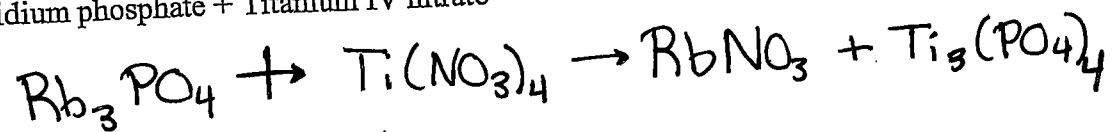
Iron III sulfate + Barium iodide



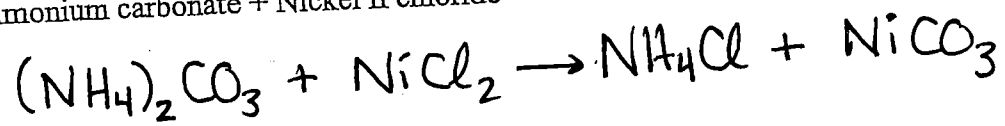
Chromium III bromide + Sodium nitrate



Rubidium phosphate + Titanium IV nitrate



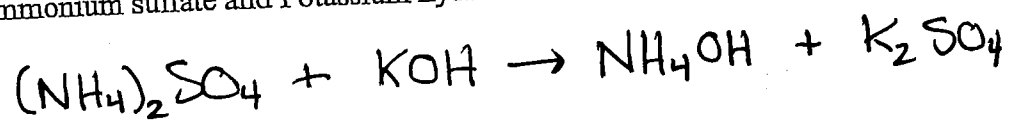
Ammonium carbonate + Nickel II chloride



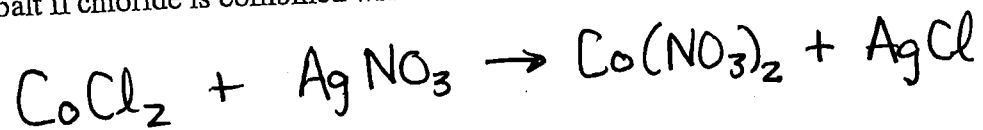
Tin IV nitrate + Potassium sulfite



Ammonium sulfate and Potassium hydroxide



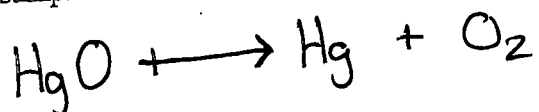
Cobalt II chloride is combined with Silver nitrate



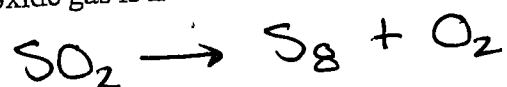
Synthesis and Decomposition Reactions

redict and balance the following synthesis and decomposition reactions. Assume that all reactions will occur. Use abbreviations to indicate the phase of reactants and products: (aq) (s) (l) (g).

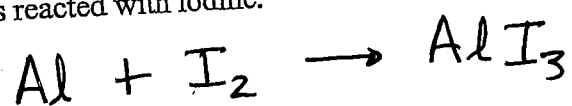
A sample of mercury II oxide is heated.



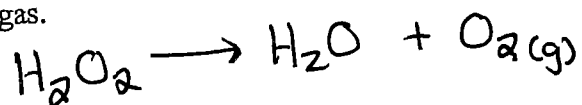
Sulfur dioxide gas is heated.



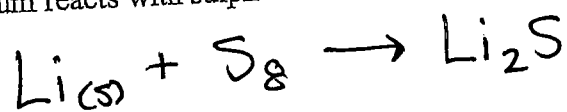
Aluminum is reacted with iodine.



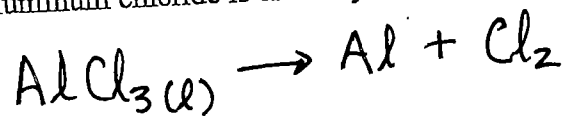
Liquid hydrogen peroxide H_2O_2 is warmed and decomposes into water and other common gas.



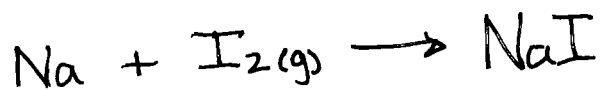
Solid lithium reacts with sulphur.



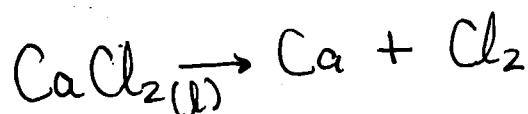
Molten aluminum chloride is electrolyzed.



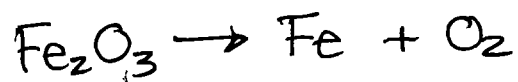
Sodium is added to a container of iodine vapor.



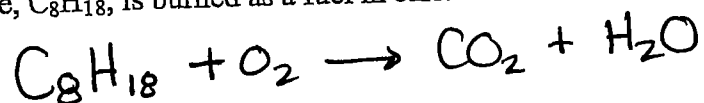
Molten calcium chloride is electrolyzed.



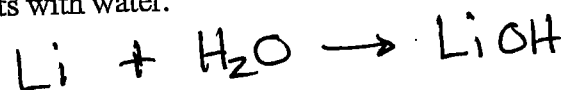
Iron (III) oxide is decomposed.



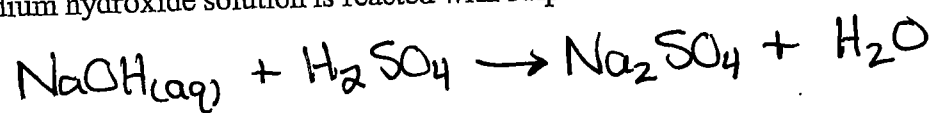
Octane, C_8H_{18} , is burned as a fuel in cars.



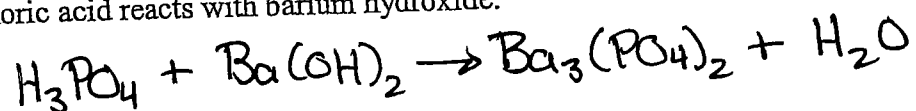
Lithium reacts with water.



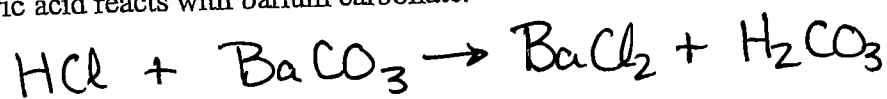
Sodium hydroxide solution is reacted with sulphuric acid.



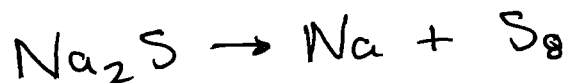
Phosphoric acid reacts with barium hydroxide.



Hydrochloric acid reacts with barium carbonate.



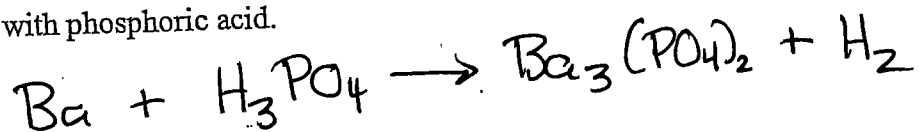
The decomposition of sodium sulphide using electrolysis.



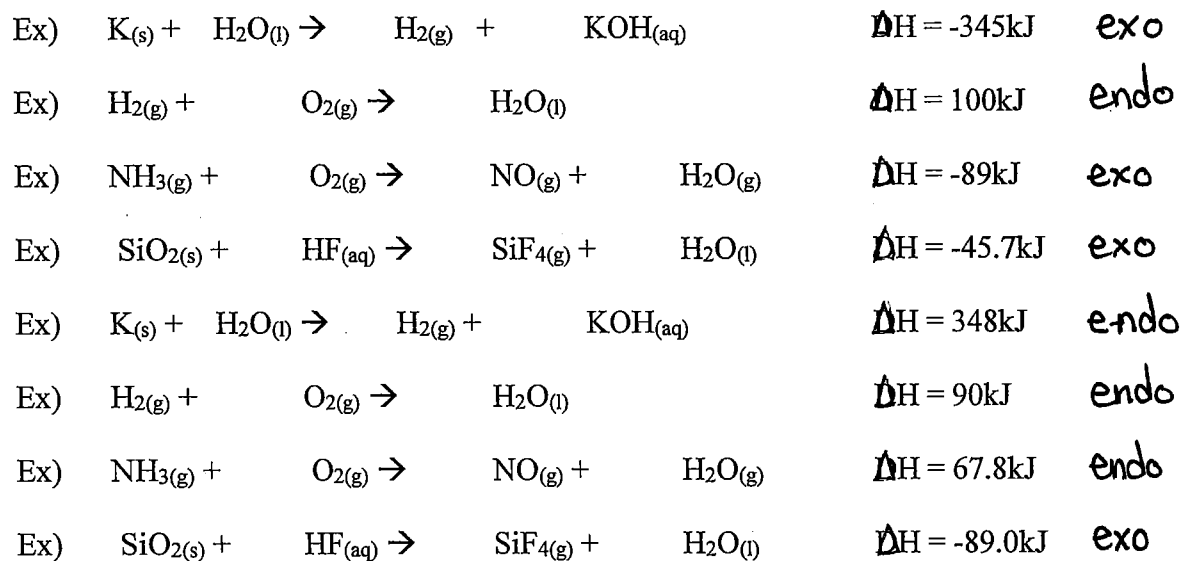
Calcium reacts with water.



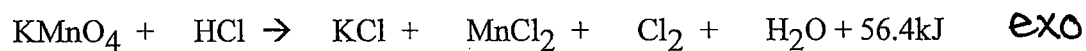
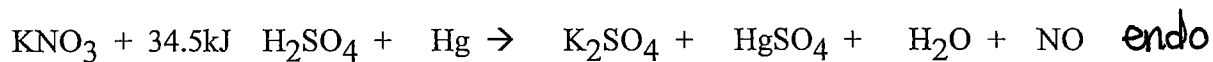
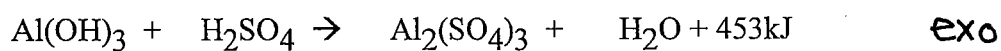
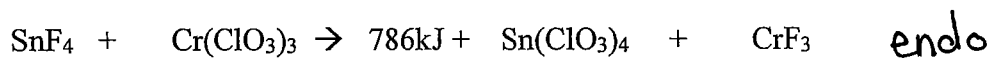
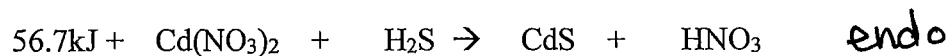
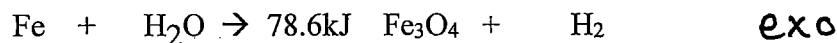
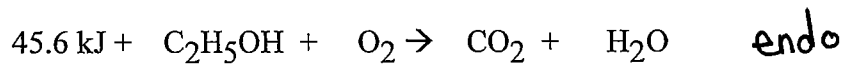
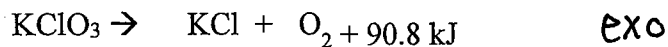
Barium reacts with phosphoric acid.

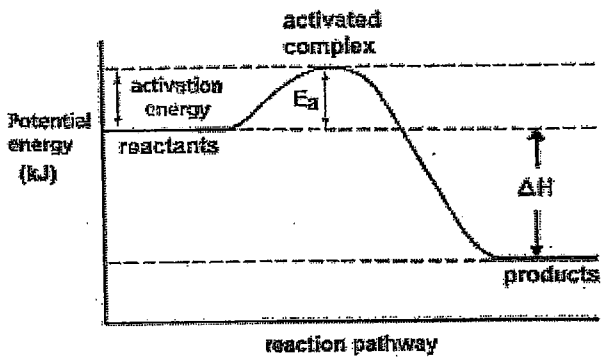


Balance and state whether it is exothermic or endothermic:

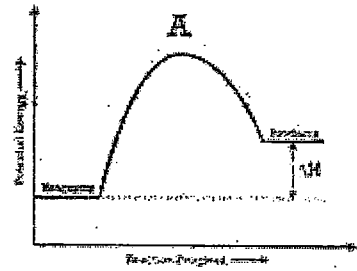


More Examples

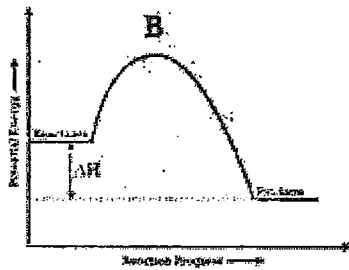




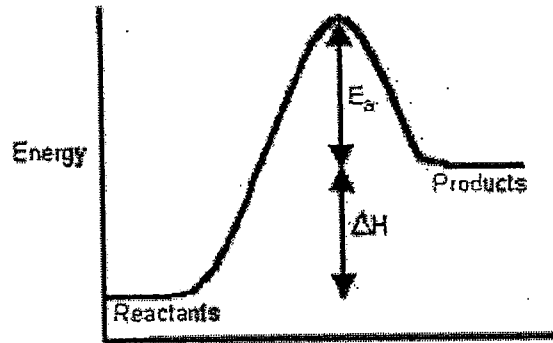
exo



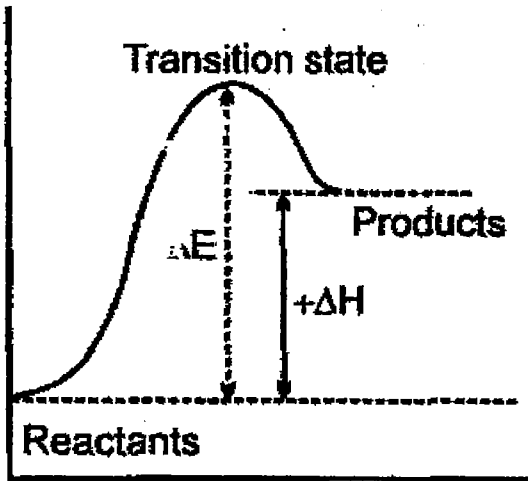
endo



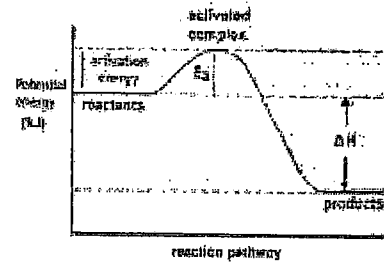
exo



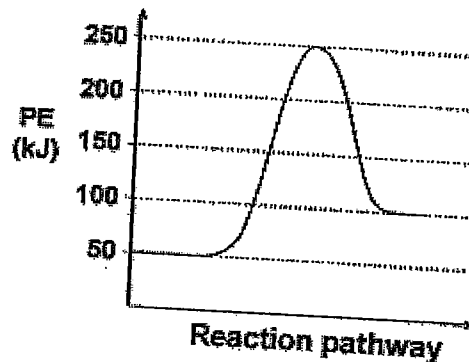
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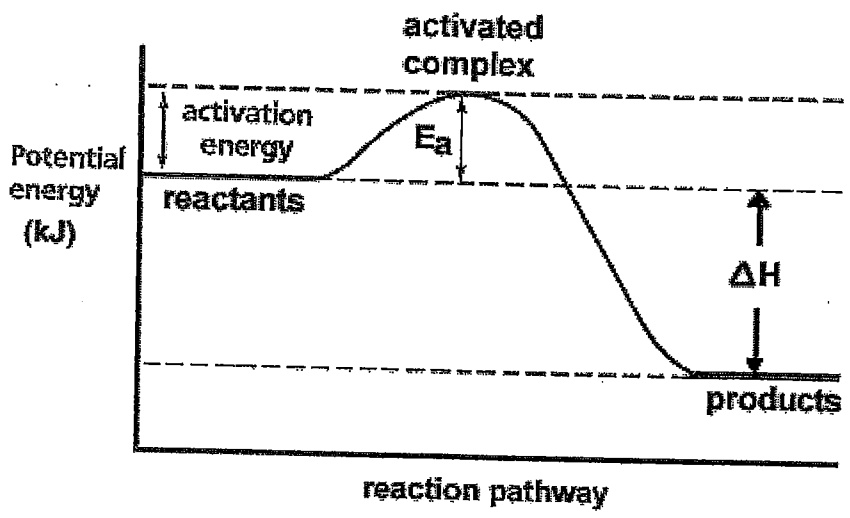
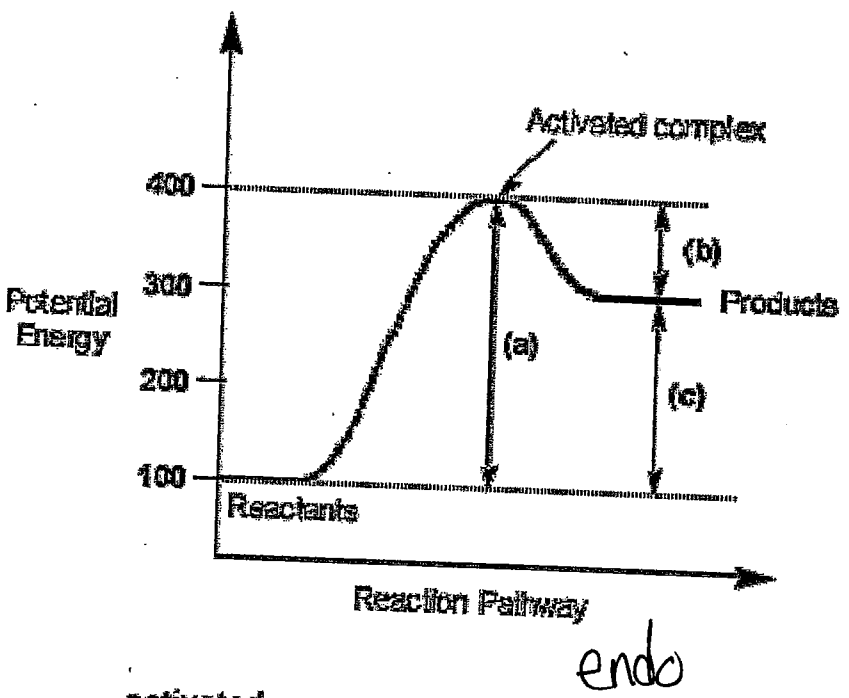
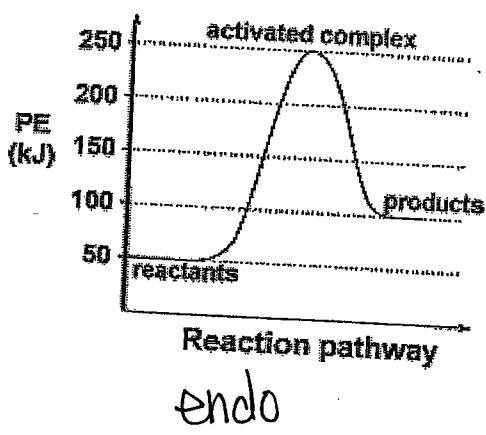
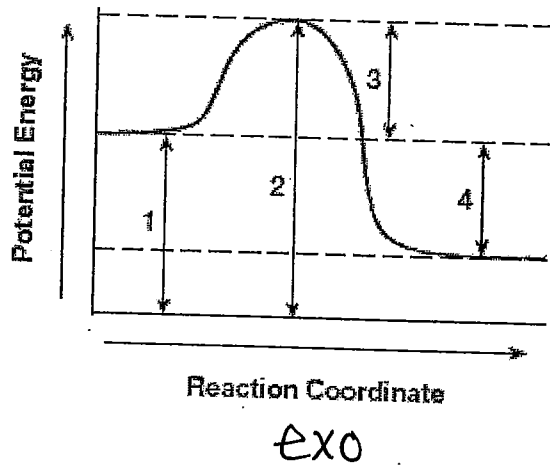
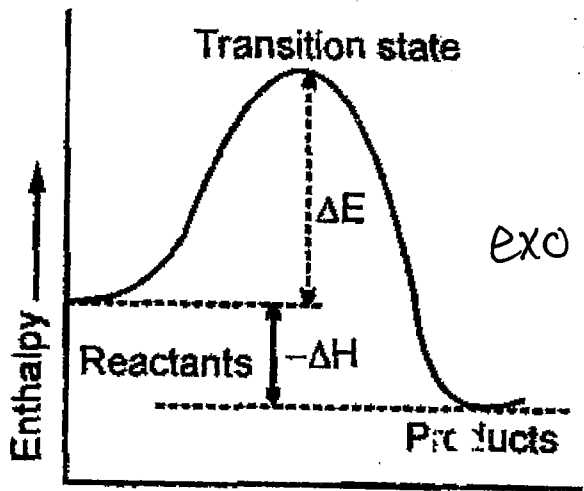
endo



exo



endo



exo

