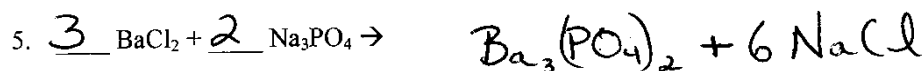
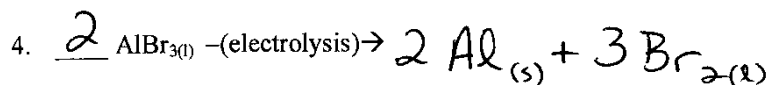
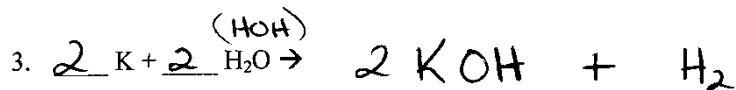
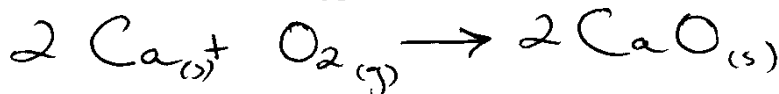


Chemistry 210 • Chemical Reactions & Equations 2

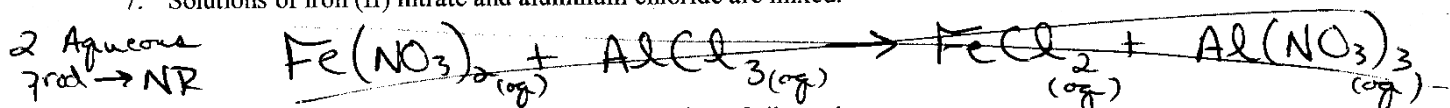
Write COMPLETE, BALANCED chemical equations for the following reactions:



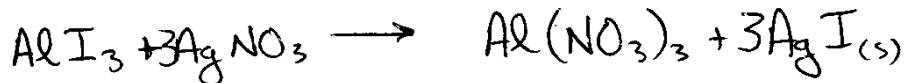
6. Calcium metal reacts with oxygen in the air.



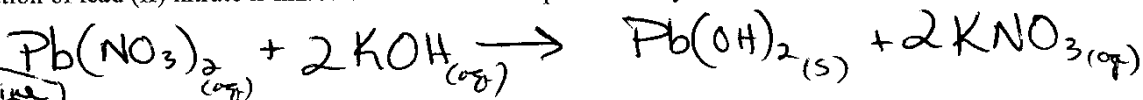
7. Solutions of iron (II) nitrate and aluminum chloride are mixed.



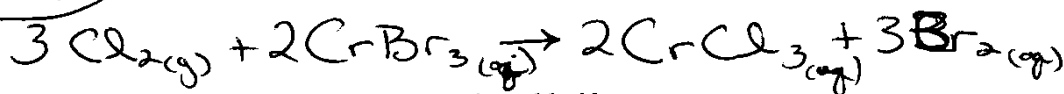
8. Aqueous aluminum iodide is mixed with a solution of silver nitrate.



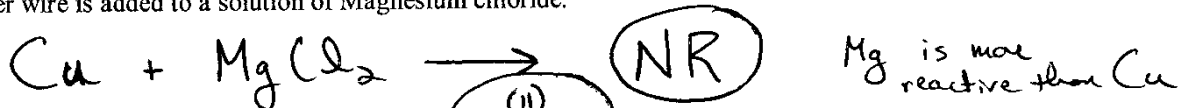
9. A solution of lead (II) nitrate is mixed with a solution of potassium hydroxide.



10. Chlorine gas is bubbled through a solution of chromium(III) bromide.



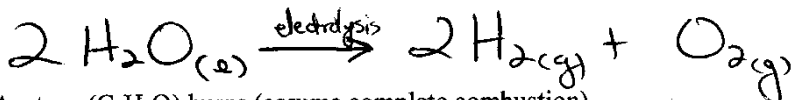
11. Copper wire is added to a solution of Magnesium chloride.



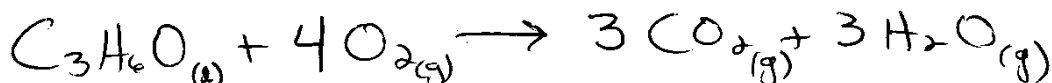
12. A strip of magnesium is added to a solution of copper chloride.



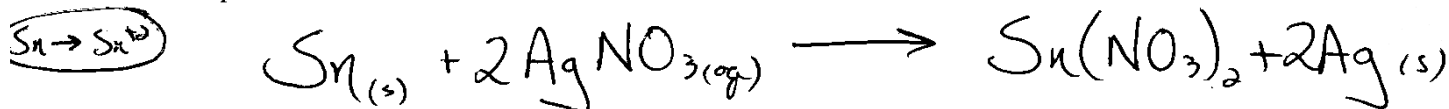
13. Water is subjected to electrolysis.



14. Acetone (C₃H₆O) burns (assume complete combustion).



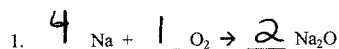
15. A piece of tin metal is thrown into a solution of silver nitrate.



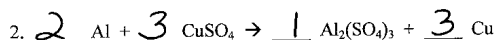
CHEMISTRY 210 • REACTIONS PRACTICE WORKSHEET

Balance the following chemical reactions and classify the reactions by type:

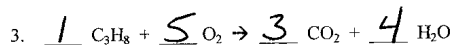
REACTION TYPE



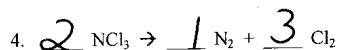
Synthesis



Single Replacement



Combustion



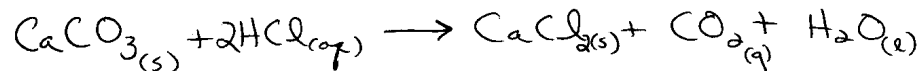
Decomposition



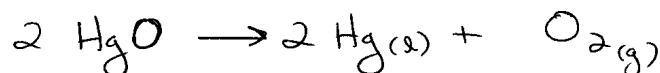
Synthesis

Write a BALANCED equation for each sentence. INCLUDE STATE SYMBOLS and any catalysts or heat symbols.

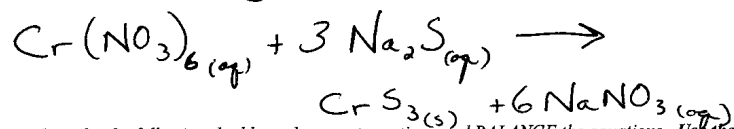
6. Solid calcium carbonate reacts with hydrochloric acid (HCl) to form solid calcium chloride, carbon dioxide, and water.



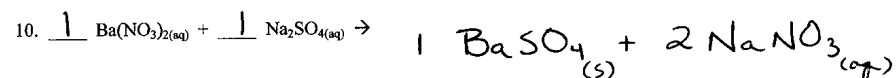
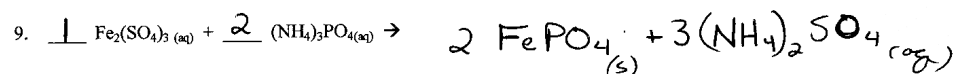
7. Solid mercury(II) oxide is heated and it decomposes to mercury metal and oxygen.



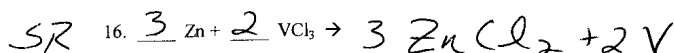
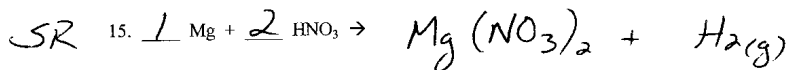
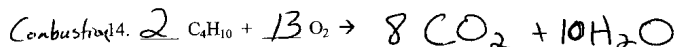
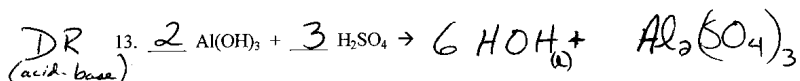
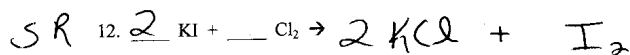
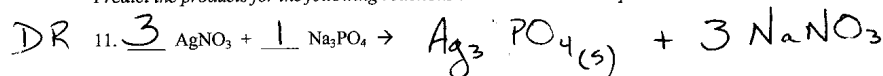
8. An aqueous solution of chromium(VI) nitrate is mixed with a solution of sodium sulfide and a precipitate of chromium(VI) sulfide is formed while sodium nitrate remains in solution.



Predict the products for the following double replacement reactions and BALANCE the equations. Use the solubility chart to predict the STATE SYMBOLS for the products:

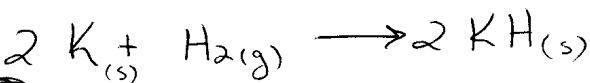


Predict the products for the following reactions and BALANCE the equations.

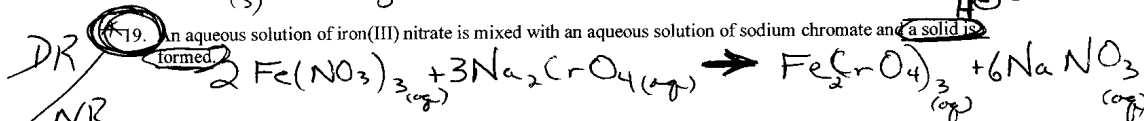


Write formulas for the reactants, predict the products for the following reactions, write state symbols for all, and BALANCE the equations.

Syn 18. Potassium metal reacts with hydrogen gas.

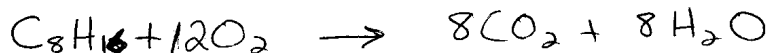


Note: When H_2 reacts w/ a metal, it makes hydride, H^-

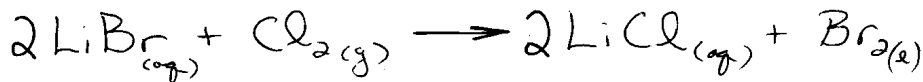


NR Both products aqueous \rightarrow NR (no reaction)

Combustion 20. Liquid Octene (C_8H_{16}) is burned in oxygen.



SR 21. Aqueous lithium bromide reacts with chlorine gas.



22. Sodium phosphate reacts with cobalt (II) chloride to form a precipitate.

