

NAME:

HONORS CHEMISTRY

SECTION:

Predicting Products of Chemical Reactions (Level 2)

Directions:

First, based on the nature of the reactants, classify the following reactions as synthesis, decomposition, single replacement, double displacement, or combustion. Second, write the formulas of the reactants and then predict the products. Third, balance the equation, using the lowest whole number coefficients. Make sure the formulas of your products are written correctly before balancing. Finally, determine if the reaction is a redox reaction.

Class of reaction	Predict products and balance	Redox (Y/N)?
1.	A strip of zinc is immersed in a solution of lead(II) nitrate.	
2.	Chlorine gas is bubbled through a solution of aluminum bromide.	
3.	Solutions of sodium phosphate and calcium chloride are mixed.	
4.	Solid mercury(II) oxide is heated.	

5.	A piece of sodium metal is added to a sample of fluorine gas.	
6.	Propane gas (C_3H_8) is burned in air.	
7.	A sample of gold(I) chloride is strongly heated.	
8.	Solutions of barium hydroxide and perchloric acid are mixed.	
9.	Liquid bromine is shaken with a sodium iodide solution.	
10.	A piece of solid bismuth is heated strongly in nitrogen.	