U4 Lesson 4 (Part 1 & 2) Check for Understanding

Predicting Products of SR, DR & Combustion Reactions

PART ONE: Will a Single Replacement Reaction Take Place?

Using the Activity Series Chart on your Reference Sheet, determine if the reaction will occur *(remember: you are deciding if the **element by itself** (not necessarily the 1st element) can **replace** another **element from the compound**)*.

		Will the reaction occur?	
1.	$Cr + HNO_3 \rightarrow$	□ YES	□ NO
2.	$NiCl_3 + Sb \rightarrow$	□ YES	□ NO
3.	$Rb + H_2O$ (cold) $\rightarrow$	□ YES	□ NO
4.	$Cl_2 + LiF \rightarrow$	□ YES	□ NO
5.	$Zn(NO_3)_2 + Ba \rightarrow$	□ YES	□ NO
6.	$NaI + Br_2 \rightarrow$	□ YES	□ NO
7.	$Ag + H_2SO_4 \rightarrow$	□ YES	□ NO
8.	$Al + CaCl_2 \rightarrow$	□ YES	□ NO

Use the following charges for transition metals above if needed:
Cr^{+3} Sb^{+2}

PART TWO: Follow the steps below and predict products of Single Replacement reactions

1. *Determine the Type/Subtype using the Guidelines on the Reference Sheet.*
2. *Predict the products using the guidelines remembering to **check charges** on new compounds and remembering the **diatomic molecules***
3. *Balance the reaction.*

Single Replacement Reactions: *Recall that you will need to consult the Activity Series to determine if the reaction will occur. If it cannot occur, write "NR" on the product side.Be sure to balance each reaction.*

_____1. $Al + HCl \rightarrow$

_____2. $Pb + K_2CO_3 \rightarrow$
(if needed, make the charge of any lead ion +4)

_____3. $Cl_2 + LiI \rightarrow$

_____4. $K + NaNO_3 \rightarrow$

_____5 $Mg + H_2O \rightarrow$