

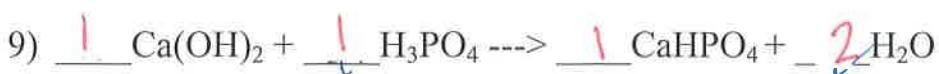
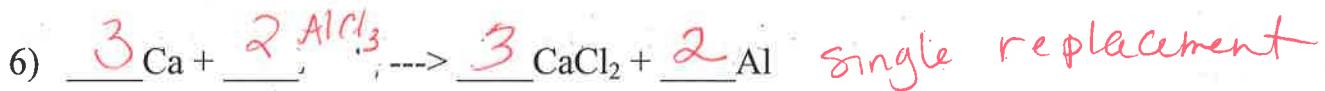
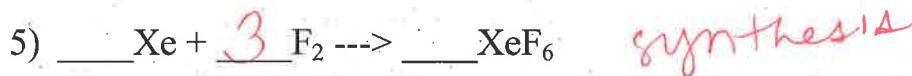
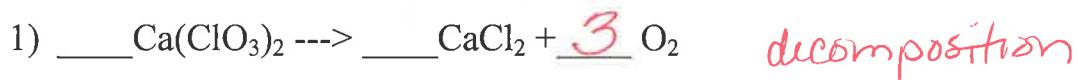
Kay Clark

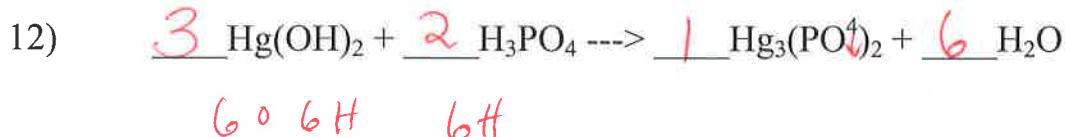
Honors Chemistry Review ch 8  
Due Tuesday Feb 26<sup>th</sup> Test Wed Feb. 27<sup>th</sup>

List the signs that a chemical reaction has taken place:

- 1 Heat + Light
- 2 Bubbles - Gas
- 3 Color change
- 4 precipitate

Balance the following reactions. For # 1-8 give the type of reaction.





Write the following equations and balance them.

13. Sodium and water combine to produce sodium hydroxide and hydrogen.



14. Carbon combines with oxygen to produce carbon monoxide.



15. Hydrogen and sulfur combine to make hydrogen sulfide.



Sg

16. Chlorine plus sodium bromide produces sodium chloride and bromine.



17. Copper reacts with iron (II) sulfate to produce iron and copper (I) sulfate.



18. Sodium metal combines with gaseous chlorine to produce sodium chloride.



### Activity Series

19) Complete the following word equations.

- a) zinc + lead nitrate solution .....  $\text{Zn} + \text{Pb}(\text{NO}_3)_2 \rightarrow \text{Pb} + \text{Zn}(\text{NO}_3)_2$
- b) iron + zinc sulphate solution .....  $\text{Fe} + \text{ZnSO}_4 \rightarrow \text{No Rxn}$
- c) lead + copper nitrate solution .....  $\text{Pb} + \text{Cu}(\text{NO}_3)_2 \rightarrow \text{Pb}(\text{NO}_3)_2 + \text{Cu}$
- d) magnesium + zinc chloride solution .....  $\text{Mg} + \text{ZnCl}_2 \rightarrow \text{MgCl}_2 + \text{Zn}$
- e) copper + sodium chloride solution .....  $\text{Cu} + \text{NaCl} \rightarrow \text{No Rxn}$
- f) zinc + iron sulphate solution .....  $\text{Zn} + \text{FeSO}_4 \rightarrow \text{ZnSO}_4 + \text{Fe}$
- g) gold + silver nitrate solution .....  $\text{Au} + \text{AgNO}_3 \rightarrow \text{No Rxn}$
- h) magnesium + calcium nitrate solution .....  $\text{Mg} + \text{Ca}(\text{NO}_3)_2 \rightarrow \text{No Rxn}$

20) Three metals X, Y and Z have the following reactions:-

Y will displace X from a solution of its salt.

Z will displace both X and Y from solutions of their salts.

Place the three metals in order of reactivity, starting with the least reactive.

B2Q

X least Y Z most

(2)

21) Here is a list of metals in order of decreasing reactivity. Q and R are mystery metals.

K > Q > Ca > Mg > Al > Zn > R > Fe > Cu

a. Will Q react with cold water?

yes

b. Will R react with cold water?

no

c. Will R react with dilute hydrochloric acid?

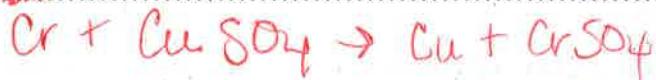
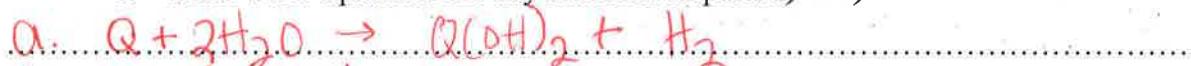
yes

d. Will R displace copper from copper sulphate solution?

yes

e. Write word equations for any reactions in parts a) to d)

Q=Cr



Describe the splint tests:

1  $H_2$  a lit splint pops in the presence of  
Hydrogen gas

2  $O_2$  a glowing splint relights in the  
presence of  $O_2$  gas

3  $CO_2$  a lit splint goes out in  
the presence of  $CO_2$

\* Go over symbols of Rxns <sup>'S, l, g, a9'</sup>  
<sup>catalyst</sup>  $\xrightarrow{\text{heat}}$

