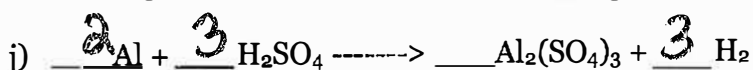
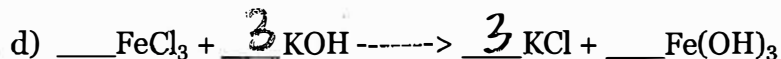
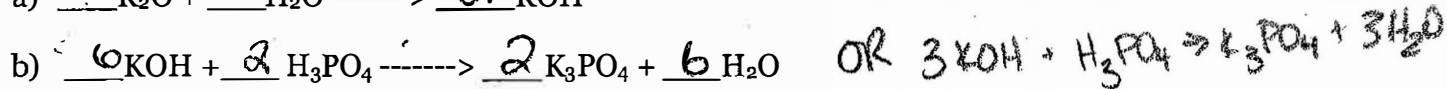
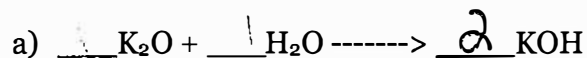


1.4 Assignment

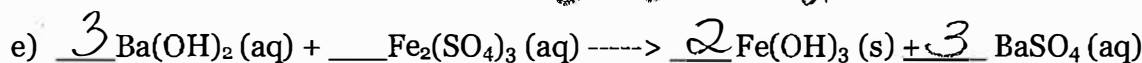
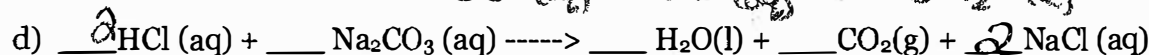
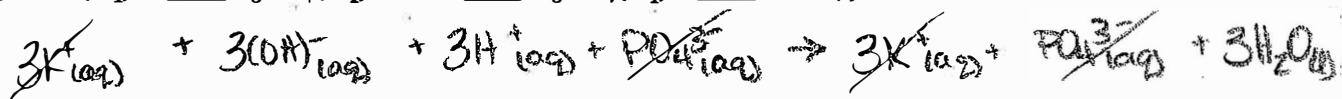
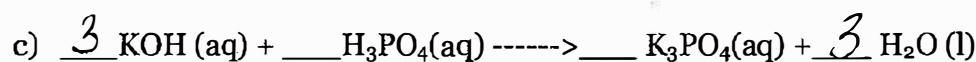
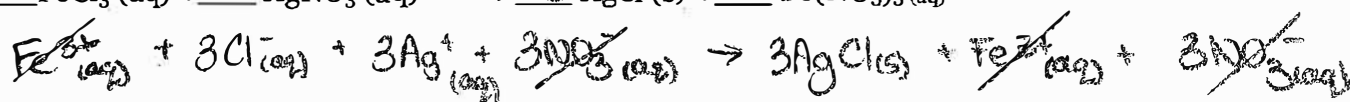
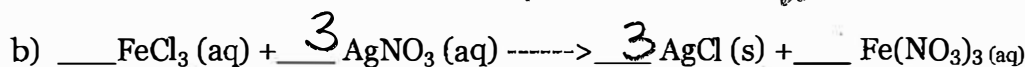
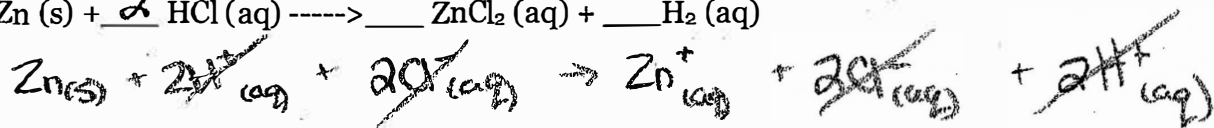
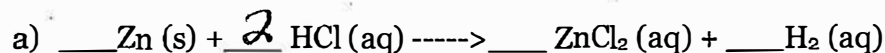
1) Determine the # of atoms of each type present in the following reactants.

Reactants	# of each atom
PbS + 2 PbO	Pb = 3 S = 1 O = 2
2 NH ₄ NO ₃ + H ₂ S	N = 4 H = 10 O = 6 S = 1
Fe(NO ₃) ₃ + 3 LiOH	Fe = 1 N = 3 O = 12 Li = 3 H = 3
Ca ₃ (PO ₄) ₂ + 3 H ₂ SO ₄	Ca = 3 P = 2 O = 20 H = 6 S = 3

2) Balance the following chemical equations by inspection ;



3) Write the total and net ionic equations for the following using the procedure above.



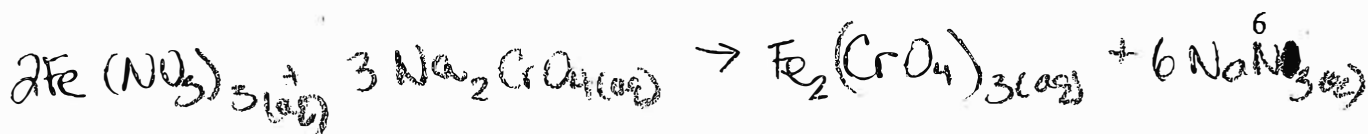
4) For each of the following problems, tell:

- What type of reaction might be expected (5 choices)
- Whether the reaction will occur or not (assume that all double displacements will go ahead)
- If not, why it will not occur
- If so, what the balanced equation for the reaction is

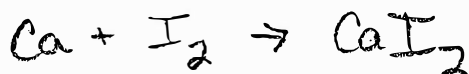
a) tin and copper (II) sulphate \rightarrow Single replacement
 \rightarrow will occur because tin is higher on activity series.



b) iron (III) nitrate and sodium chromate \rightarrow double replacement
 \rightarrow will occur



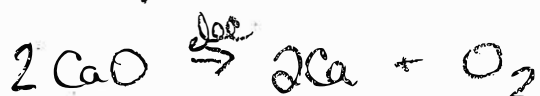
- c) calcium and iodine \rightarrow synthesis
 \rightarrow will occur.



- d) magnesium and hydrochloric acid \rightarrow single replacement
 \rightarrow will occur (b/c Mg is higher on series)



- e) calcium oxide $\xrightarrow{\text{electrolyzed}}$ \rightarrow energy added
 \rightarrow decomposition; yes it will occur b/c energy is added



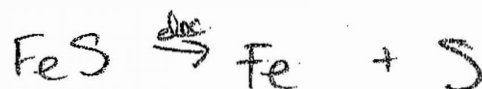
- f) carbon and oxygen \rightarrow synthesis
 \rightarrow will occur



- g) sodium carbonate and sulfuric acid \rightarrow double displacement \therefore will occur



- h) iron (II)sulfide $\xrightarrow{\text{electrolyzed}}$ \rightarrow decomp; will occur b/c energy is added



- i) platinum and lead(II) nitrate \rightarrow single replacement
 \rightarrow no reaction because lead is higher on activity series

- j) propane and oxygen gas



\rightarrow combustion; will occur.