

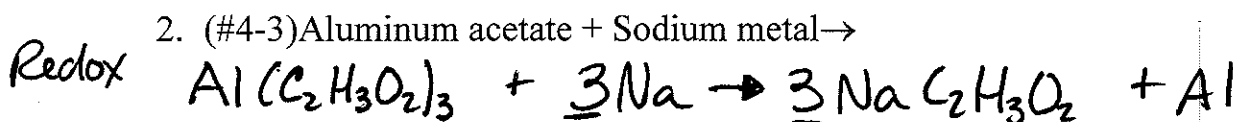
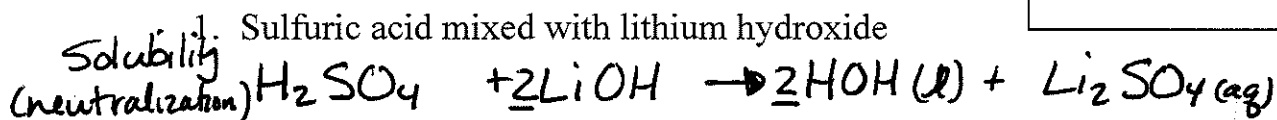
CHEMICAL REACTIONS TEST REVIEW

INSTRUCTIONS:

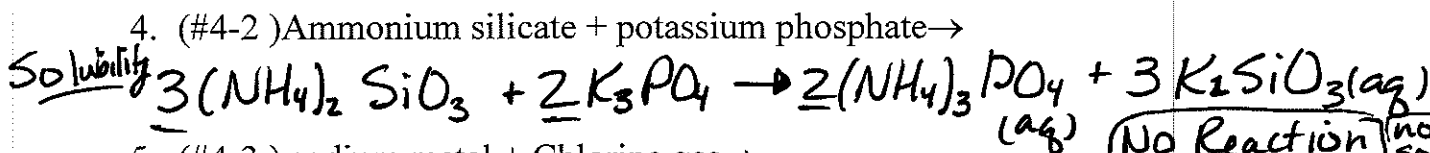
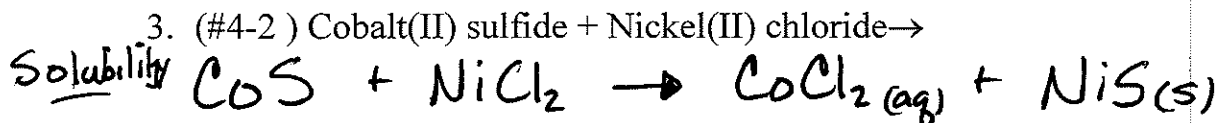
Translate chemical name to symbols, indicate type of reaction, predict products (if necessary), and balance the equation.

Video

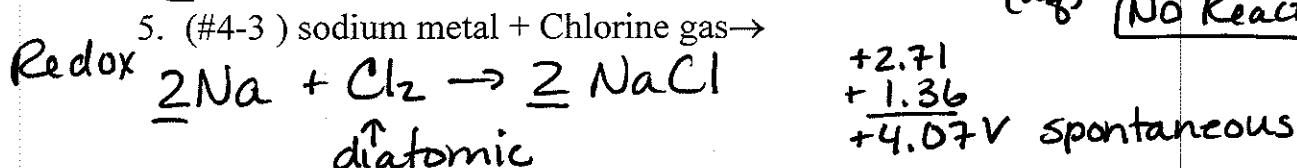
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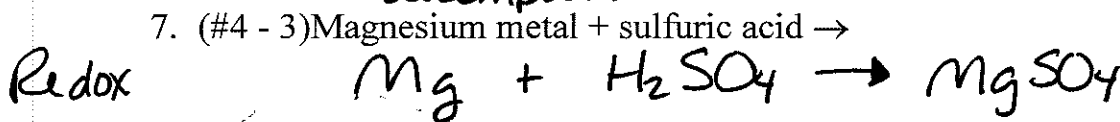
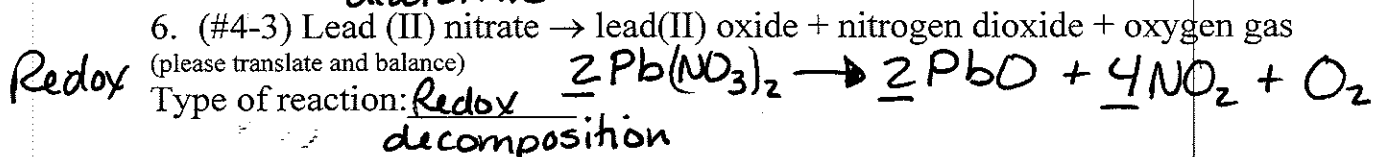
+2.71
 -1.66
 +1.05V
 Spontaneous



No Reaction ^{no solid}



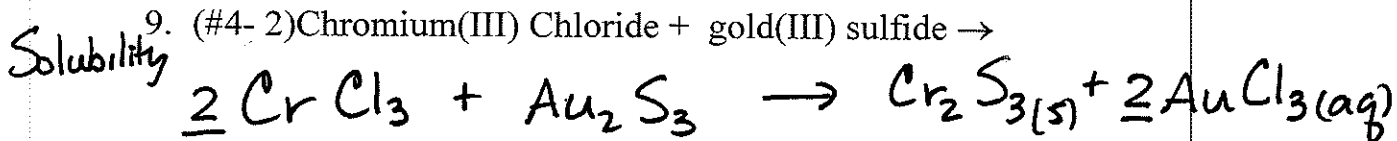
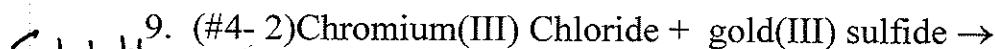
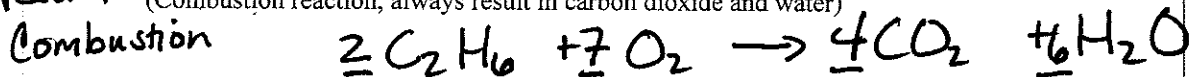
+2.71
 +1.36
 +4.07V spontaneous



+2.37
 0
 2.37V
 Spontaneous



Redox (Combustion reaction, always result in carbon dioxide and water)

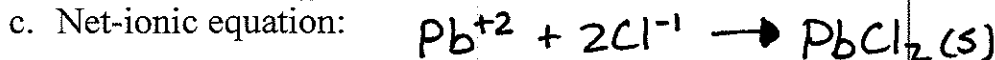
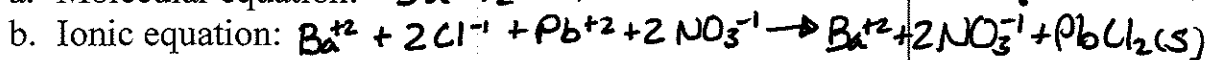
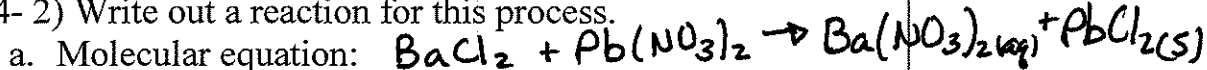


10. (#4-2) A container has the aqueous solutions poured into it and a reaction takes place causing a solid to be formed. ($\text{BaCl}_2(\text{aq}) + \text{Pb}(\text{NO}_3)_2$)

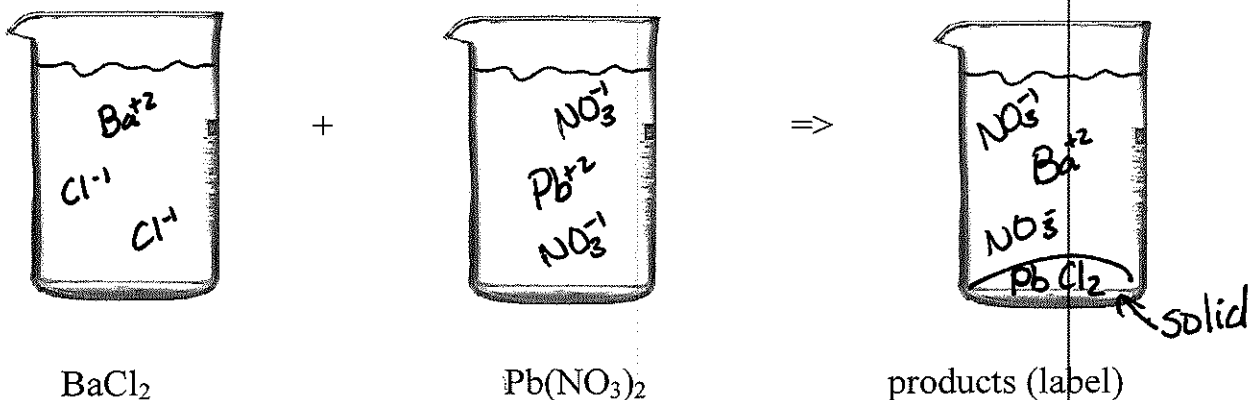
a. (#4-2) What type of chemical reaction is this?

solubility

b. (#4-2) Write out a reaction for this process.



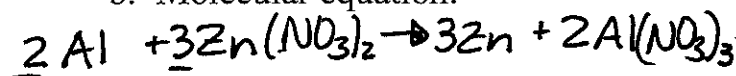
c. (#4-2) Draw a picture of each substance before and after.



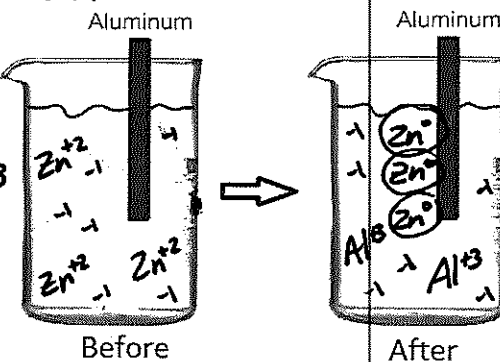
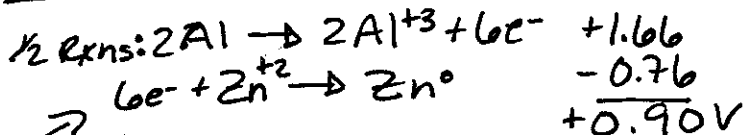
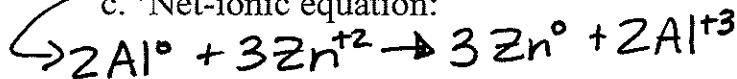
11. A solid chunk of aluminum is placed in zinc nitrate.

a. (#4-3) What type of reaction is this? **Redox**

b. Molecular equation:



c. Net-ionic equation:



d. (#4-3) Determine the voltage of this process? (is it spontaneous, how do you know?) **+0.90V Spontaneous (positive voltage)**

e. (#4-3) Draw proportional models of the particles in this process before and after.

spectator $-1 = \text{NO}_3^{-1}$

f. How might a scientist speed up this reaction?

- increase concentration of reactants
- increase temperature
- increase surface area
- add a catalyst