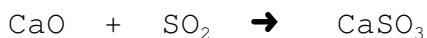


Name: \_\_\_\_\_

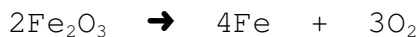
**SCH 3U Balancing Quiz**

Write balanced chemical equations for each:

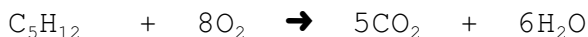
- a) synthesis of calcium sulphite from calcium oxide and sulphur dioxide



- b) decomposition of ferric oxide



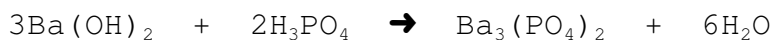
- c) pentane ( $\text{C}_5\text{H}_{12}$ ) is burned in oxygen to form carbon dioxide plus water vapour



- d) stannic chloride undergoes a single replacement reaction with aluminum metal



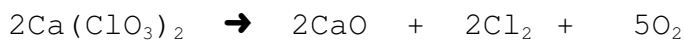
- e) barium hydroxide and phosphoric acid undergo a neutralization reaction



- f) cobalt(II) chloride hexahydrate ( $\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$ ) undergoes thermal decomposition to form cobalt(II) chloride plus water



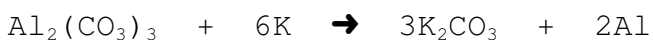
- g) Calcium chlorate decomposes to form calcium oxide plus two diatomic gases



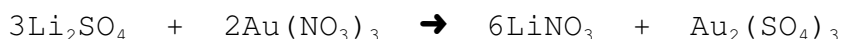
- h) potassium periodate and lead(II) nitrate undergo a double replacement



- i) aluminum carbonate and potassium metal undergo a single replacement

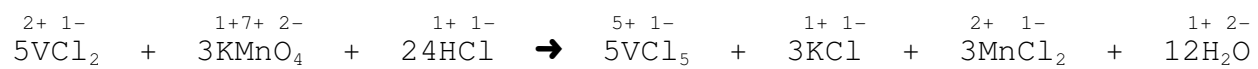


- j) lithium sulphate and auric nitrate undergo a double replacement reaction



Bonus: (hint: use changes in oxidation state to facilitate balancing)

$$(3e^- \text{ lost per V}) \times 5 = 15e^- \text{ total}$$



$$(5e^- \text{ gained per Mn}) \times 3 = 15e^- \text{ total}$$