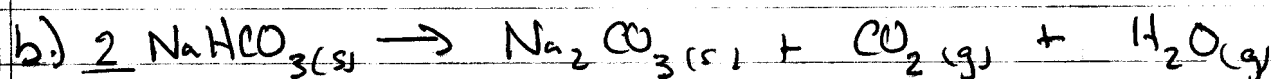
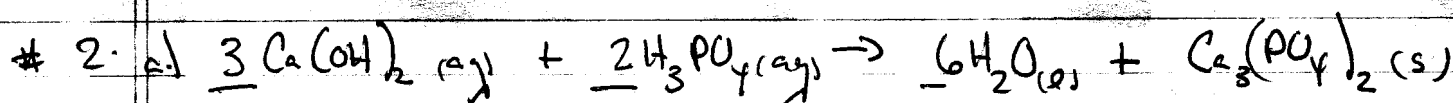
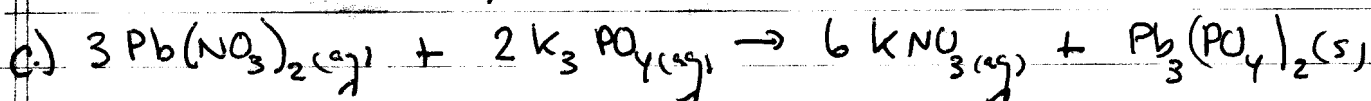
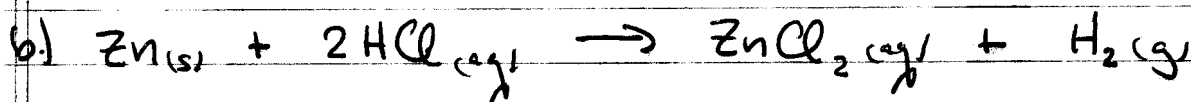
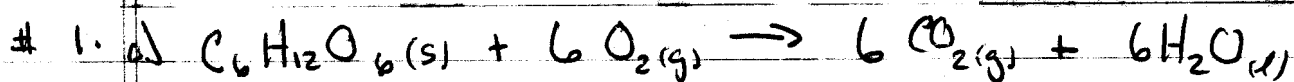


PS # 5 solutions



c) $3.25 \text{ moles } NaHCO_3 \left(\frac{1 \text{ mole } Na_2CO_3}{2 \text{ moles } NaHCO_3} \right) = 1.63 \text{ moles } Na_2CO_3$

d) $52.8 \text{ g } NaHCO_3 \left(\frac{1 \text{ mole } NaHCO_3}{84.0 \text{ g } NaHCO_3} \right) \left(\frac{1 \text{ mole } CO_2}{2 \text{ moles } NaHCO_3} \right) \left(\frac{44.0 \text{ g } CO_2}{1 \text{ mole } CO_2} \right) = 13.8 \text{ g } CO_2$

e) $50.0 \text{ g } Na_2CO_3 \left(\frac{1 \text{ mole } Na_2CO_3}{106 \text{ g } Na_2CO_3} \right) \left(\frac{2 \text{ moles } NaHCO_3}{1 \text{ mole } Na_2CO_3} \right) \left(\frac{84.0 \text{ g } NaHCO_3}{1 \text{ mole } NaHCO_3} \right) = 79.2 \text{ g } NaHCO_3$

#3 a) $8.75 \text{ mmoles } Na_2CO_3 \left(\frac{1 \text{ mmole } Ag_2CO_3}{1 \text{ mmole } Na_2CO_3} \right) \left(\frac{275.8 \text{ mg } Ag_2CO_3}{1 \text{ mmole } Ag_2CO_3} \right) \left(\frac{10^{-3} \text{ g}}{1 \text{ mg}} \right) = 2.41 \text{ g } Ag_2CO_3$

b) $8.75 \text{ mmoles } Na_2CO_3 \rightarrow 8.75 \text{ mmoles } Ag_2CO_3 \rightarrow 7.00 \text{ mmoles } AgNO_3$ (smaller LR)

$14.00 \text{ mmoles } AgNO_3 \left(\frac{1 \text{ mmole } Ag_2CO_3}{2 \text{ moles } AgNO_3} \right) \left(\frac{275.8 \text{ mg } Ag_2CO_3}{1 \text{ mmole } Ag_2CO_3} \right) \left(\frac{10^{-3} \text{ g}}{1 \text{ mg}} \right) = 1.93 \text{ g } Ag_2CO_3$