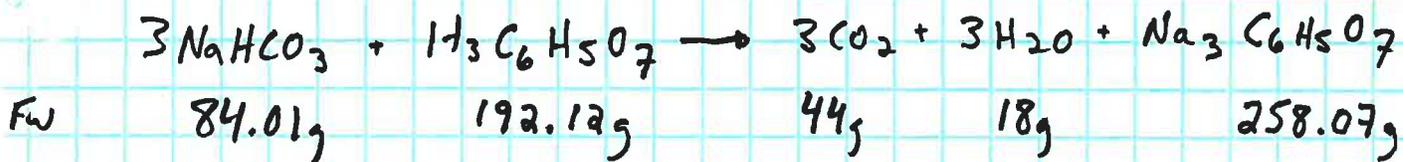


3.77

KEY



$$1\text{g NaHCO}_3 \frac{\text{NaHCO}_3}{1\text{mole}} \frac{3\text{mole CO}_2}{3\text{mole NaHCO}_3} \frac{44\text{g}}{1\text{mole CO}_2} = \boxed{0.524\text{g CO}_2}^*$$

$$1\text{g H}_3\text{C}_6\text{H}_5\text{O}_7 \frac{\text{H}_3\text{C}_6\text{H}_5\text{O}_7}{1\text{mole}} \frac{3\text{mole CO}_2}{1\text{mole H}_3\text{C}_6\text{H}_5\text{O}_7} \frac{44\text{g}}{1\text{mole CO}_2} = \boxed{0.687\text{g CO}_2}$$

(A) $\text{NaHCO}_3 \rightarrow$ Limits

(B) 0.524g CO_2 ARE MADE

$$1\text{g NaHCO}_3 \frac{1\text{mole NaHCO}_3}{84.01\text{g}} \frac{1\text{mole H}_3\text{C}_6\text{H}_5\text{O}_7}{3\text{mole NaHCO}_3} \frac{192.12\text{g}}{1\text{mole H}_3\text{C}_6\text{H}_5\text{O}_7} = 0.762\text{g used}$$

$$1\text{g H}_3\text{C}_6\text{H}_5\text{O}_7$$

$$- 0.762\text{g H}_3\text{C}_6\text{H}_5\text{O}_7$$

(C) $0.238\text{g H}_3\text{C}_6\text{H}_5\text{O}_7$ REMAIN IN EXCESS