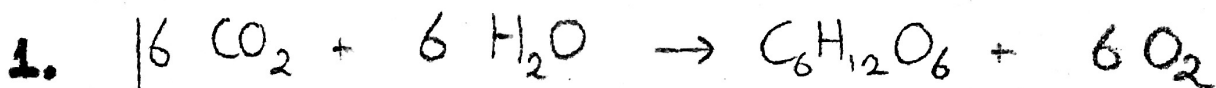


Problem Set Two: Episode 801

KEY



given:
15.6 g
 CO_2

15.6 g

↓ \div molar mass
 $\div 44.01 \frac{\text{g}}{\text{mol}}$

asked:
mol of $\text{C}_6\text{H}_{12}\text{O}_6$

0.35 mol $\xrightarrow{\div 6 \times 1}$ 0.0591 mol

Answer: 0.0591 mol of $\text{C}_6\text{H}_{12}\text{O}_6$

Or

$$15.6 \text{ g CO}_2 \times \frac{1 \text{ mol CO}_2}{44.01 \text{ g CO}_2} \times \frac{1 \text{ mol C}_6\text{H}_{12}\text{O}_6}{6 \text{ mol CO}_2} = 0.0591 \text{ mol}$$

2. given: 0.25 mol $\text{C}_6\text{H}_{12}\text{O}_6$

asked: g of CO_2



1.50 mol $\xleftarrow{\div 1 \times 6}$ 0.25 mol

x molar mass

x $44.01 \frac{\text{g}}{\text{mol}}$

↓
66.02 g

Or

$$0.25 \text{ mol C}_6\text{H}_{12}\text{O}_6 \times \frac{6 \text{ mol CO}_2}{1 \text{ mol C}_6\text{H}_{12}\text{O}_6} \times \frac{44.01 \text{ g CO}_2}{1 \text{ mol}} = 66.02 \text{ g of CO}_2$$