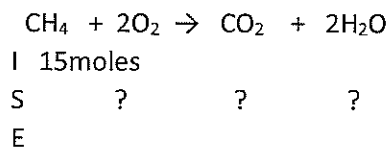


Stoichiometric Ratio MOLES 2

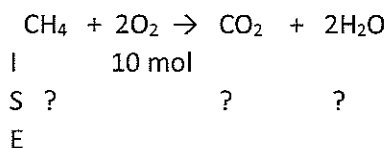
Objective: Be able to set up an ISE table and utilize the stoichiometric ratio.

For each of the following questions, calculate the ? unknown quantity.

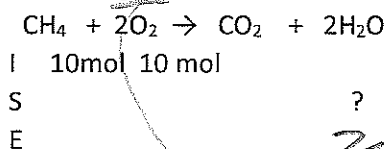


$$\frac{15}{1} \Big| \frac{2 \text{ O}_2}{1} = 30 \quad \frac{15}{1} \Big| \frac{1 \text{ CO}_2}{1} = 15 \text{ CO}_2$$

$$\frac{15}{1} \Big| \frac{2 \text{ H}_2\text{O}}{1} = 30 \text{ H}_2\text{O}$$



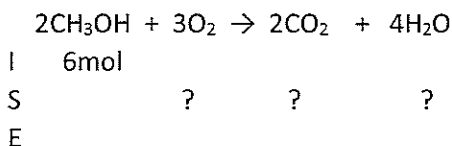
$$\frac{10}{2} \Big| \frac{1 \text{ CH}_4}{1} = 5 \quad \frac{10}{2} \Big| \frac{1 \text{ CO}_2}{2} = 5 \text{ CO}_2$$



$$\frac{10}{1} \Big| \frac{2 \text{ H}_2\text{O}}{1} = 20 \text{ H}_2\text{O}$$

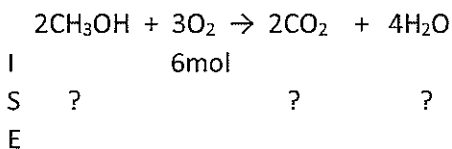
LR
 20 makes less

Thought question here, using the top two questions how much water do you think you will get?

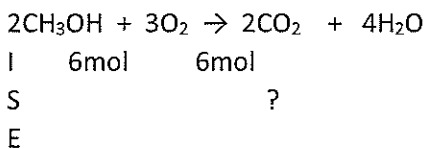


$$\frac{6}{2} \Big| \frac{3 \text{ O}_2}{2} = 9 \text{ O}_2 \quad \frac{6}{2} \Big| \frac{4 \text{ H}_2\text{O}}{2} = 12 \text{ H}_2\text{O}$$

$$\frac{6}{2} \Big| \frac{2}{2} = 6 \text{ CO}_2$$

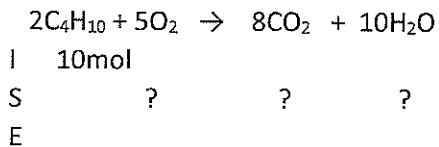


$$\frac{6}{3} \Big| \frac{2 \text{ CH}_3\text{OH}}{3} = 4 \quad \frac{6}{3} \Big| \frac{2 \text{ CO}_2}{3} = 4$$



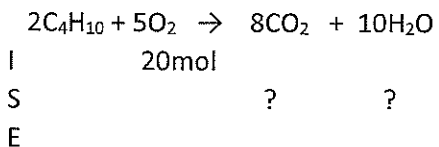
$$\frac{6}{3} \Big| \frac{4}{3} = 8 \text{ H}_2\text{O}$$

Thought question here, using the top two question:



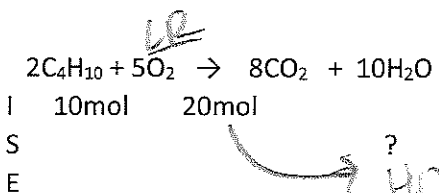
$$\frac{10}{2} \times \frac{5}{1} = \text{hint } \frac{10}{2} \times \frac{8}{1} = 40 \text{ CO}_2$$

$$\frac{10}{2} \times \frac{10}{1} = 50 \text{ H}_2\text{O}$$



$$\frac{20}{5} \times \frac{2}{1} = 8 \text{ C}_4\text{H}_{10}$$

$$\frac{20}{2} \times \frac{8}{1} = 80 \text{ CO}_2$$

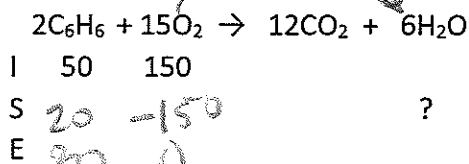
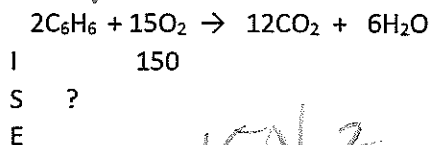
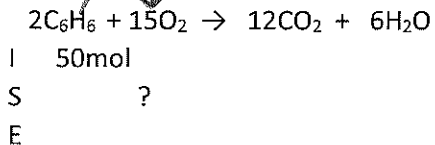


$$\frac{20}{5} \times \frac{10}{1} = 40 \text{ H}_2\text{O}$$

40 molecules H₂O

How many water molecules can be made in this process above?

Solve the following using factor label. Use moles for the following!



$$\frac{150}{15} \times \frac{2}{1} = 20 \text{ C}_6\text{H}_6$$

$$\frac{50}{2} \times \frac{15}{1} = 375 \text{ O}_2$$

left over

$$\frac{150}{15} \times \frac{6}{1} = 60 \text{ H}_2\text{O}$$