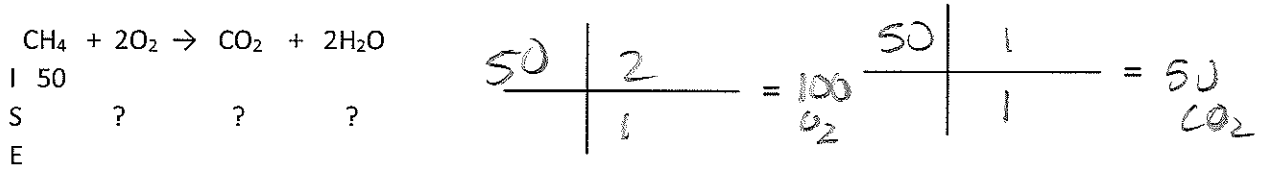


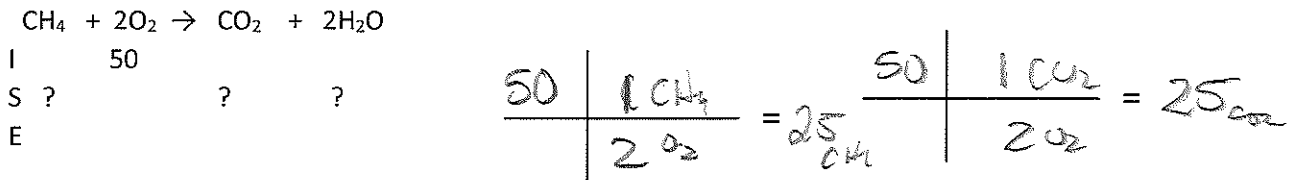
Stoichiometric Ratio 2

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

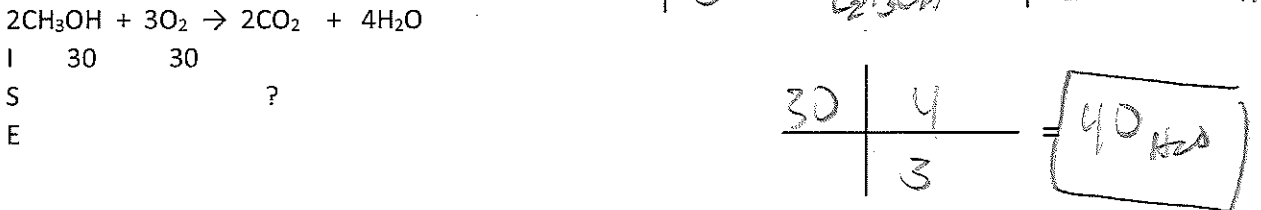
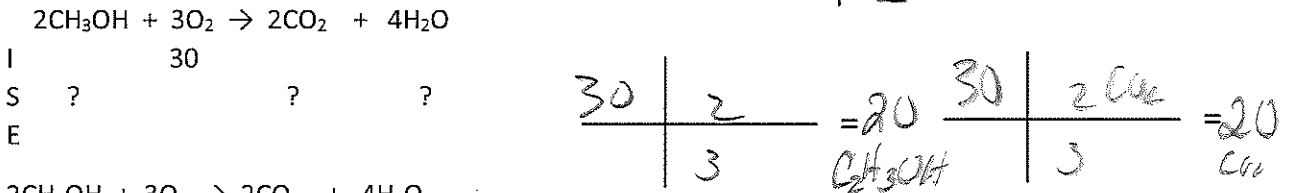
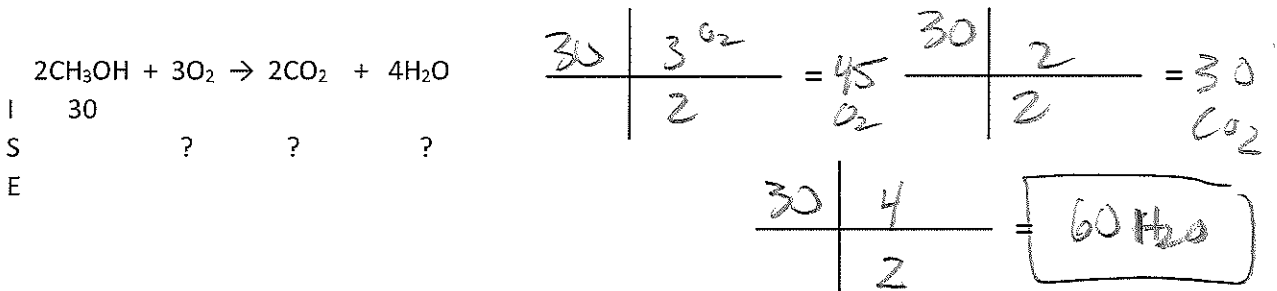
For each of the following questions, calculate the ? unknown quantity.



$$\frac{50}{1} \Big| \frac{2}{1} = 100 \text{ H}_2\text{O}$$

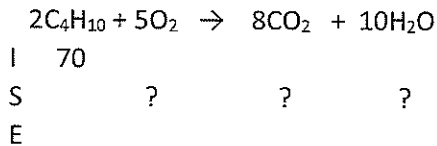


Thought question here, using the top two questions how much water do you think you will get?



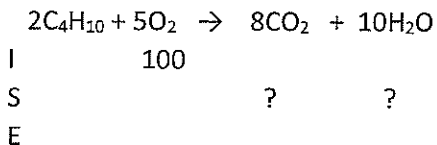
Thought question here, using the top two questions how much water do you think you will get?

The O₂ only makes 40 versus 60.
 So after 40 O₂ are made → O₂ is gone, Rxn stops

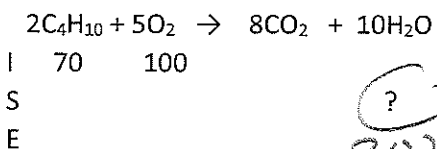


$$\frac{70}{2} \times \frac{5 O_2}{175} = \frac{70}{2} \times \frac{8 CO_2}{2} = 280 \frac{CO_2}{2}$$

$$\frac{70}{2} \times \frac{10 H_2O}{2} = 350 H_2O$$



$$\frac{100}{5} \times \frac{2 C_4H_{10}}{100} = 40 \quad \frac{100}{5} \times \frac{8 CO_2}{5} = 160 \frac{CO_2}{5}$$

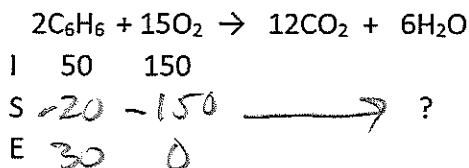
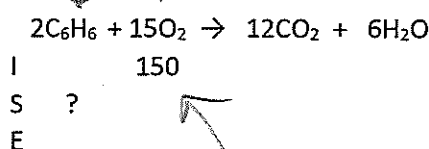
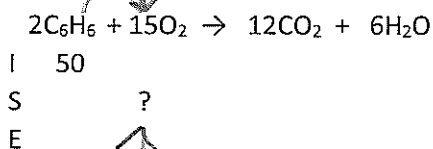


$$\frac{100}{5} \times \frac{10 H_2O}{5} = 200 H_2O$$

?
 200
 Smaller

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

Solve the following using factor label.



$$\frac{50}{2} \times \frac{15}{2} = 375 \text{ Needed}$$

$$\frac{150}{15} \times \frac{2}{15} = 20 \text{ } C_6H_6 \text{ Needed}$$

*If you consume all the O_2 , you only need 20 C_6H_6 .

$$\frac{150}{15} \times \frac{6 H_2O}{15} = 60 H_2O$$