Answer on Question\#63209 - Chemistry - Organic chemistry

## Question:

If 8.64 moles of $\mathrm{C}_{5} \mathrm{H}_{12}$ reacts with excess $\mathrm{O}_{2}$, how many moles of $\mathrm{CO}_{2}$ will be produced in the following combustion reaction? $\mathrm{C}_{5} \mathrm{H}_{12}+8 \mathrm{O}_{2}=6 \mathrm{H}_{2} \mathrm{O}+5 \mathrm{CO}_{2}$

## Solution:

$\mathrm{n}\left(\mathrm{CO}_{2}\right)=5 \mathrm{n}\left(\mathrm{C}_{5} \mathrm{H}_{12}\right)=5 \cdot 8.64 \mathrm{~mol}=43.2 \mathrm{~mol}$
Answer:
43.2 moles of $\mathrm{CO}_{2}$

