## Question \#72655, Chemistry / General Chemistry / Completed

A gas grill burns Propane $\left(\mathrm{C}_{3} \mathrm{H}_{8}\right)$ in the presence of more than sufficient Oxygen $\left(\mathrm{O}_{2}\right)$. This reaction produces water vapour and Carbon Dioxide. The temperature and pressure conditions are such that 1 mole of each gas occupies 1 litre of volume.

What is the balanced equation for this reaction?
A. $\mathrm{C} 3 \mathrm{H} 8+4 \mathrm{O} 2 \rightarrow 2 \mathrm{CO} 2+4 \mathrm{H} 2 \mathrm{O}$
B. $\mathrm{C} 3 \mathrm{H} 8+5 \mathrm{O} 2 \rightarrow 3 \mathrm{CO} 2+4 \mathrm{H} 2 \mathrm{O}$
C. $2 \mathrm{C} 3 \mathrm{H} 8+6 \mathrm{O} 2 \rightarrow 6 \mathrm{CO} 2+8 \mathrm{H} 2 \mathrm{O}$
D. $2 \mathrm{C} 3 \mathrm{H} 8+5 \mathrm{O} 2 \rightarrow 6 \mathrm{CO} 2+4 \mathrm{H} 2 \mathrm{O}$
E. None of the Above

## Answer

B. $\mathrm{C} 3 \mathrm{H} 8+5 \mathrm{O} 2 \rightarrow 3 \mathrm{CO} 2+4 \mathrm{H} 2 \mathrm{O}$

Before reaction: After reaction:

| C | 3 | 3 |
| :--- | :--- | :--- |
| H | 8 | 8 |
| O | 10 | 10 |

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