## Theoretical yield for the combustion of octane

0.12300
0.12145
0.12070
0.11 .55
0.11840
0.11725
0.11610
0.11495
0.11380
0.11265
0.11150
0.11035
0.10920
0.0005
0.10690
0.10575

010400
0.10345
0.102
0.101

IF

Determine the theoretical yield for the combustion of octane if 1 liter of octane fuel is mixed with 1420 liters of $\mathrm{O}_{2}$. Please first balance the chemical equation. [The density of octane is $0.7 \mathrm{gm} / \mathrm{cm}^{3}$ ]

$$
\mathrm{C}_{8} \mathrm{H}_{18}(\ell)+\mathrm{O}_{2}(g) \rightarrow \mathrm{CO}_{2}(g)+\mathrm{H}_{2} \mathrm{O}(\ell)
$$

