## Answer on Question \#38858, Chemistry, Other

## Question

An automobile gasoline tank holds 20kg of gasoline. When the gasoline burns, 86 kg of oxygen is consumed and carbon dioxide and water are produced.
What is the total combined mass of carbon dioxide and water that is produced?

## Solution

gasoline $+\mathrm{O}_{2} \rightarrow \mathrm{CO}_{2}+\mathrm{H}_{2} \mathrm{O}$
Mass conservation law says that mass of products is equal to mass of reagents, hence the total combined mass of carbon dioxide and water is equal to total combined mass of gasoline and oxygen, numerically $20 \mathrm{~kg}+86 \mathrm{~kg}=106 \mathrm{~kg}$.
Answer: 106 kg

