Answer on Question #38858, Chemistry, Other

Question

An automobile gasoline tank holds 20kg of gasoline. When the gasoline burns, 86kg 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

 $gasoline + O_2 \rightarrow CO_2 + H_2O$

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 kg + 86 kg = 106 kg.

Answer: 106 kg