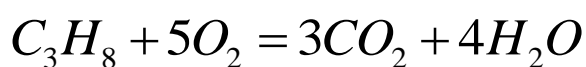**Answer on Question #80184 – Chemistry – Other**

Task:

How many grams of oxygen are required to burn 4.4 gram of C_3H_8?

Solution:

Balanced equation of combustion of propane:

$$C_3H_8 + 5O_2 = 3CO_2 + 4H_2O$$

By the reaction equation:

$$n(C_3H_8) = \frac{n(O_2)}{5};$$

$$\frac{\text{m}(C_3H_8)}{M(C_3H_8)} = \frac{\text{m}(O_2)}{5*M(O_2)};$$

$$\text{m}(O_2) = \frac{5*M(O_2)*\text{m}(C_3H_8)}{M(C_3H_8)} = \frac{5*(2*16)*4.4}{(12*3+1*8)} = \frac{704}{44} = 16g$$

Answer: 16 grams of oxygen.