## Answer on Question #81431, Chemistry / General Chemistry

A teaspoonful of baking soda contains a mass of 11g of sodium hydrocarbonate. Calculate the mass of carbon dioxide that could be made from 11g of sodium hydrocarbonate.

## Solution

 $NaHCO_3 \rightarrow CO_2$ 

According to the scheme 1 mole of sodium hydrocarbonate produces 1 mole of CO<sub>2</sub>.

Find the amount of sodium hydrocarbonate:

$$v = \frac{11}{84} = 0.131$$
 (mole)

Find the mass of 0.131 mole of CO<sub>2</sub>:

m = 0.131 × 44 = 5.764 (g)

## Answer

**5.764 g** of carbon dioxide could be made from 11g of sodium hydrocarbonate.

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