Question#9325

Sub 25
Ques. 7

The sum of the length, width, and height of a rectangular box is 75 cm.
The length is twice the sum of the width and height. The width exceed the
height by 5 cm. Find the dimensions.

Solution:

Let:

$h = height$,

$l = length$,

$w = width$.

$w + h + l = 75cm$,

$l = 2(h + w)$,

$w - h = 5, \ h = w - 5$

Write the equation:

$w + w - 5 + 2(w - 5 + w) = 75$,

$2w - 5 + 4w - 10 = 75$,

$6w = 90, w = 15$,

$w = 15, h = 15 - 5 = 10, l = 2(15 + 10) = 50$.

Answer:

$width = 15cm, height = 10cm, length = 50cm$.