Answer on Question #47229 – Math – Algebra

Question.

The length of a rectangular field is $8\ m$ less than twice is breadth. If the perimeter of a rectangular is $56\ m$, find its length and breath.

$P = 56\ m$

$a = ?\ b = ?$

Solution.

Let the breadth is equal to x meters. Therefore, the length is equal to $2x - 8$ meters. So,

$$a = x; b = 2x - 8$$

The perimeter of a rectangular is defined as:

$$P = 2(a + b) = 2(3x - 8) = 6x - 16$$

Calculate:

$$56 = 6x - 16 \rightarrow 6x = 72 \rightarrow x = 12$$

Thus, the breadth is $a = x = 12\ m$ and the length is $b = 2x - 8 = 16\ m$

Answer.

$12\ m$; $16\ m$