

Ncert Solutions Class 10 Quadratic Equations

Exercise 4.3

3. Is it possible to design a rectangular mango grove whose length is twice its breadth, and the area is 800 m^2 ? If so, find its length and breadth.

Solution:

Let breadth of rectangular grove = $x \text{ m}$

and length of rectangular grove = $2x \text{ m}$

$$\text{ATQ :-} \quad x(2x) = 800 \quad \Rightarrow \quad 2x^2 = 800$$

$$\Rightarrow \quad x^2 = 400 \quad \Rightarrow \quad x = \pm 20$$

\therefore breadth of rectangular grove = 20 m [\because breadth can never be $-ve$]

& length of rectangular grove = $2x = 40 \text{ m}$.

\therefore it is possible to design rectangular mango grove.