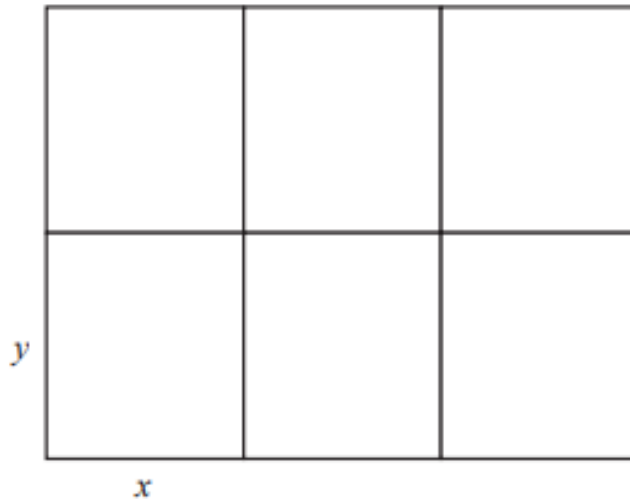


2016 P2 Q7

7. A council is setting aside an area of land to create six fenced plots where local residents can grow their own food.

Each plot will be a rectangle measuring x metres by y metres as shown in the diagram.



- (a) The area of land being set aside is 108 m^2 .
Show that the total length of fencing, L metres, is given by

$$L(x) = 9x + \frac{144}{x}.$$

- (b) Find the value of x that minimises the length of fencing required.

Answers

- (a) Proof (b) $x = 4$