

10th May

Corbettmaths

Rearrange

$$y = \frac{9c^3 + 3x}{c^3 - 8}$$

make c the subject

$$f(x) = x^2 - 2x - 8 \quad \text{for all values of } x$$

What is the range of $f(x)$?

A farmer creates a rectangular pen for his chickens.

The width of the field is x metres.

The perimeter of the field is 140 metres.

Show that the length of the rectangle is $70 - x$ metres

Show that the area of the field is $A = 70x - x^2$

Use differentiation to find the value of x for which A is a maximum