

**3rd January**

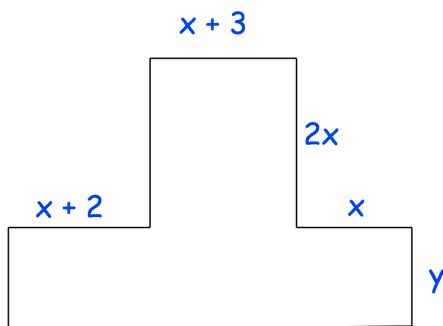
Corbettmaths

Rearrange

$$y = \frac{5(x + w)}{w} \text{ to make } w \text{ the subject}$$

$$\text{Solve } \frac{16^{2x+5}}{4^x} = 32$$

The shape below is made from two rectangles.



The perimeter of the shape is 120cm.

The area of the shape is  $A \text{ cm}^2$

Show that  $y = 55 - 5x$

Show that  $A = 275 + 146x - 13x^2$

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