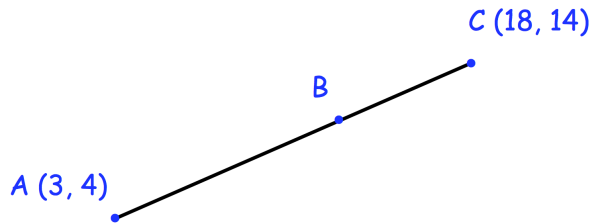


**21st August**

Corbettmaths

$$f(x) = x^2 + 6x + 20$$

Write  $f(x)$  in the form  $(x + a)^2 + b$  and find the value of  $x$  such that  $f(x)$  is a minimum.

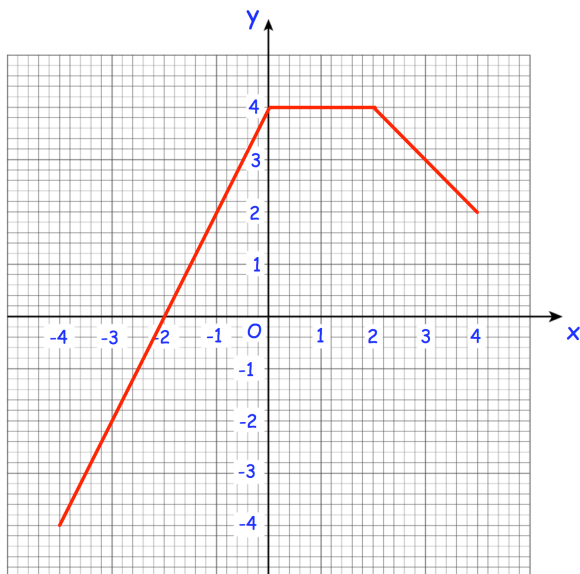


ABC is a straight line.  
 $AB : BC = 2 : 1$

Work out the coordinates of the point B

$$f(x) = 9 - 4x \quad \text{for } -3 \leq x \leq -1$$

Work out the range of  $f(x)$



Define  $f(x)$ , stating clearly the domain for each part.