

5 The function f is defined by $f(x) = (x + a)(x + 3a)(x - b)$ where a and b are positive integers.

(a) On the axes in the Printed Answer Booklet, sketch the curve $y = f(x)$. [2]

(b) On your sketch show, in terms of a and b , the coordinates of the points where the curve meets the axes. [2]

It is now given that $a = 1$ and $b = 4$.

(c) Find the total area enclosed between the curve $y = f(x)$ and the x -axis. [4]