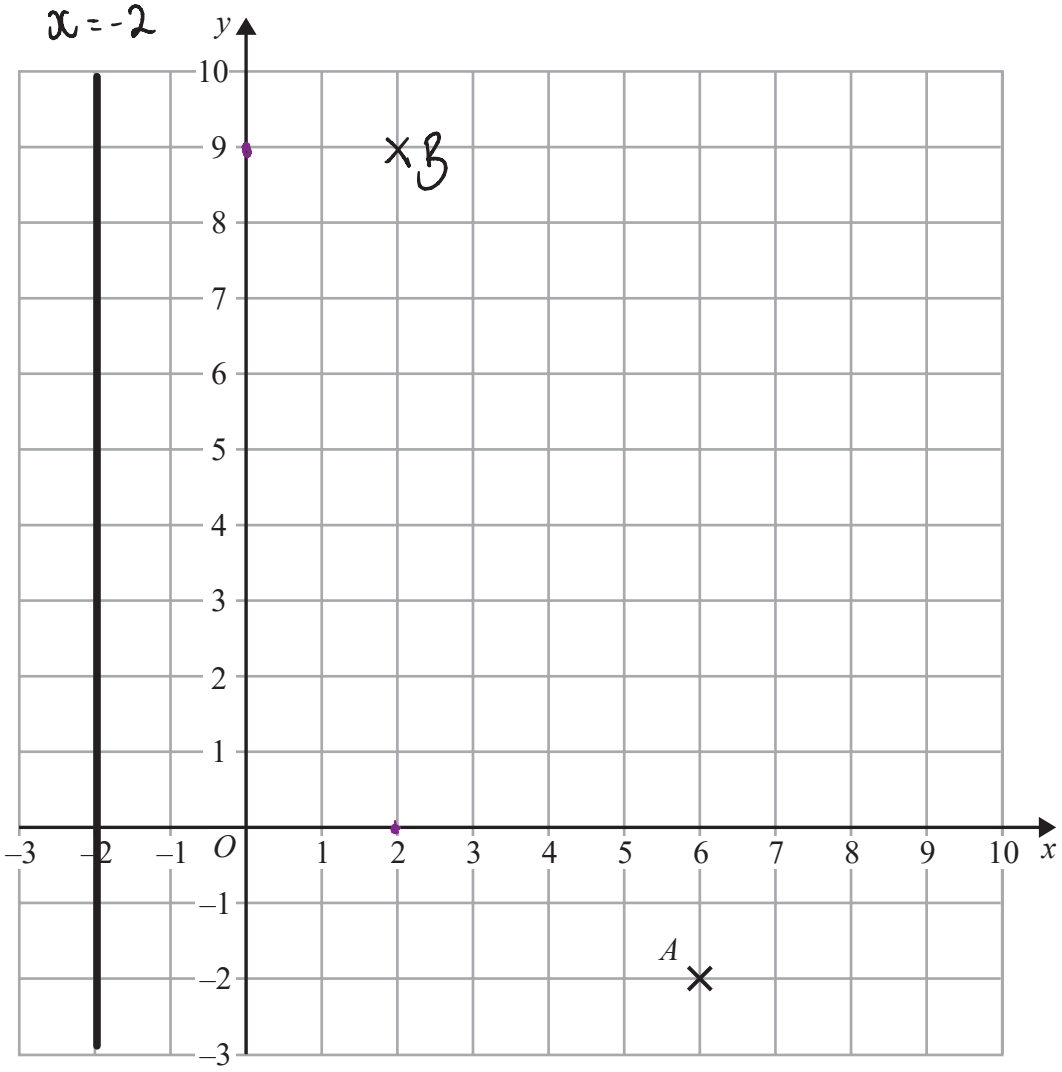
1.



(a) Write down the coordinates of the point A.

(6 , -2)
x y

(1)

(b) (i) Plot the point with coordinates (2, 9).
Label this point B.

(1)

(ii) Does point B lie on the straight line with equation $y = 4x + 1$?
You must show how you get your answer.

B(2, 9)
x = 2
y = 9

y = 4 × 2 + 1
y = 8 + 1
y = 9

Yes, point B does lie on line with equation y = 4x + 1

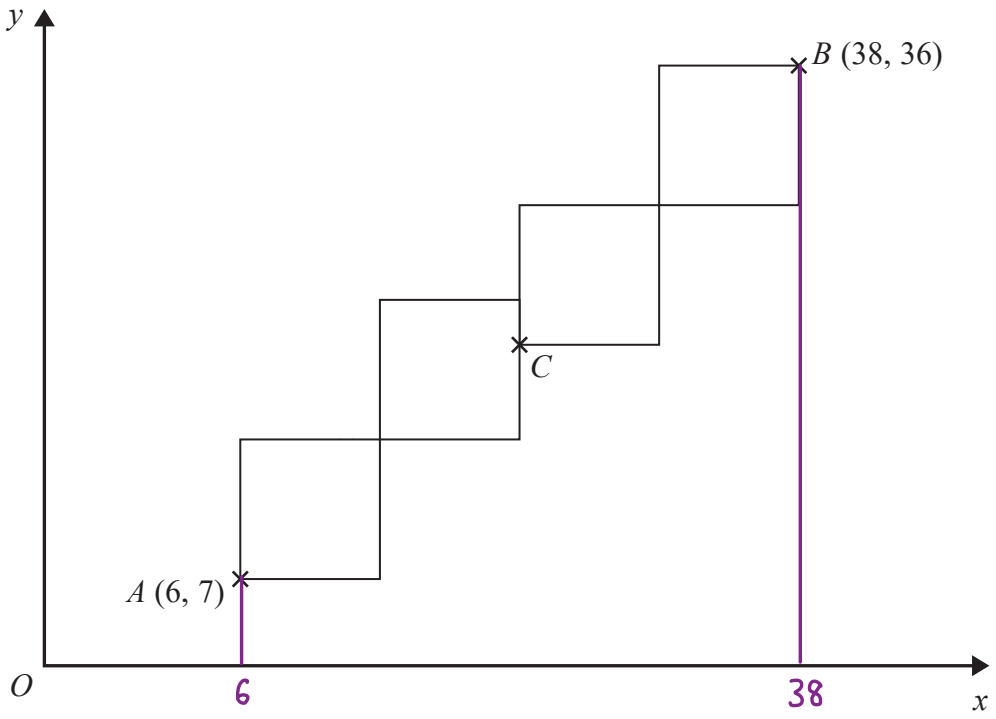
(1)

(c) On the grid, draw the line with equation $x = -2$

(1)

2. A pattern is made from four identical squares.

The sides of the squares are parallel to the axes.



Point A has coordinates (6, 7)
Point B has coordinates (38, 36)
Point C is marked on the diagram.

Work out the coordinates of C.

1) Side length of one square:

Width of 4 squares (x-axis) ÷ 4

$(38 - 6) \div 4 = \frac{32}{4} = 8$ (1)

(1)

x co-ordinate of C

2) C is 2 side lengths to the right of A (along the x axis)

$6 + 8 + 8 = 22$ (1) So the x coordinate of C is 22

↑ x co-ordinate of A

3) y co-ordinate of C

C is 2 side lengths below B (down the y axis)

$36 - 8 - 8 = 20$ (1)

↑ y co-ordinate of B

(1)

(22 , 20)

(Total for Question is 5 marks)

3. Write down the gradient of the line with equation $y = 2x + 3$

$y = mx + c$

2 ✓1

(Total for Question is 1 mark)