The points A, B and C lie in order on a straight line.

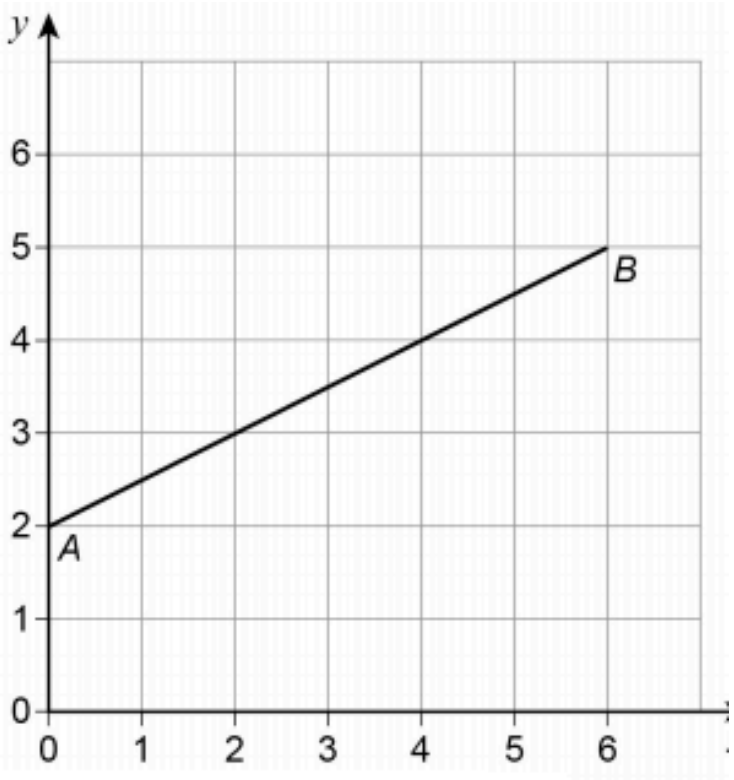
The coordinates of A are $(2, 5)$
The coordinates of B are $(4, p)$
The coordinates of C are $(q, 17)$

Given that $AC = 4AB$, find the values of p and q.

Line AB is shown on the grid.

A is the point $(0, 2)$

B is the point $(6, 5)$



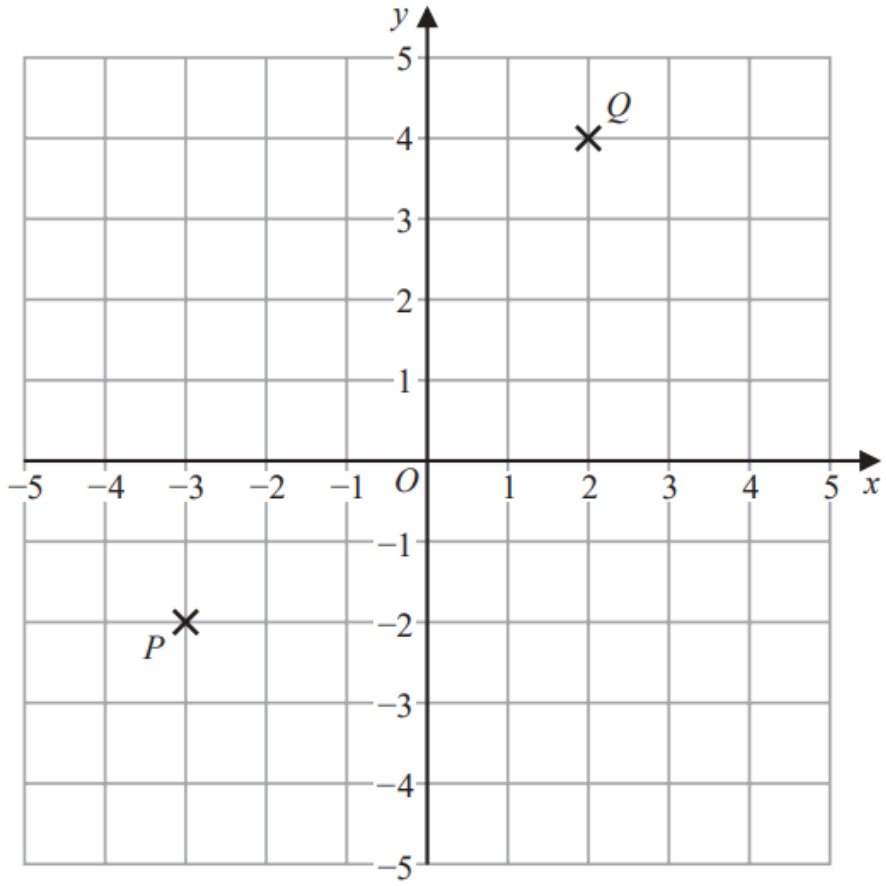
(a) Work out the coordinates of the midpoint of the line AB.

(b) C is another point on AB.

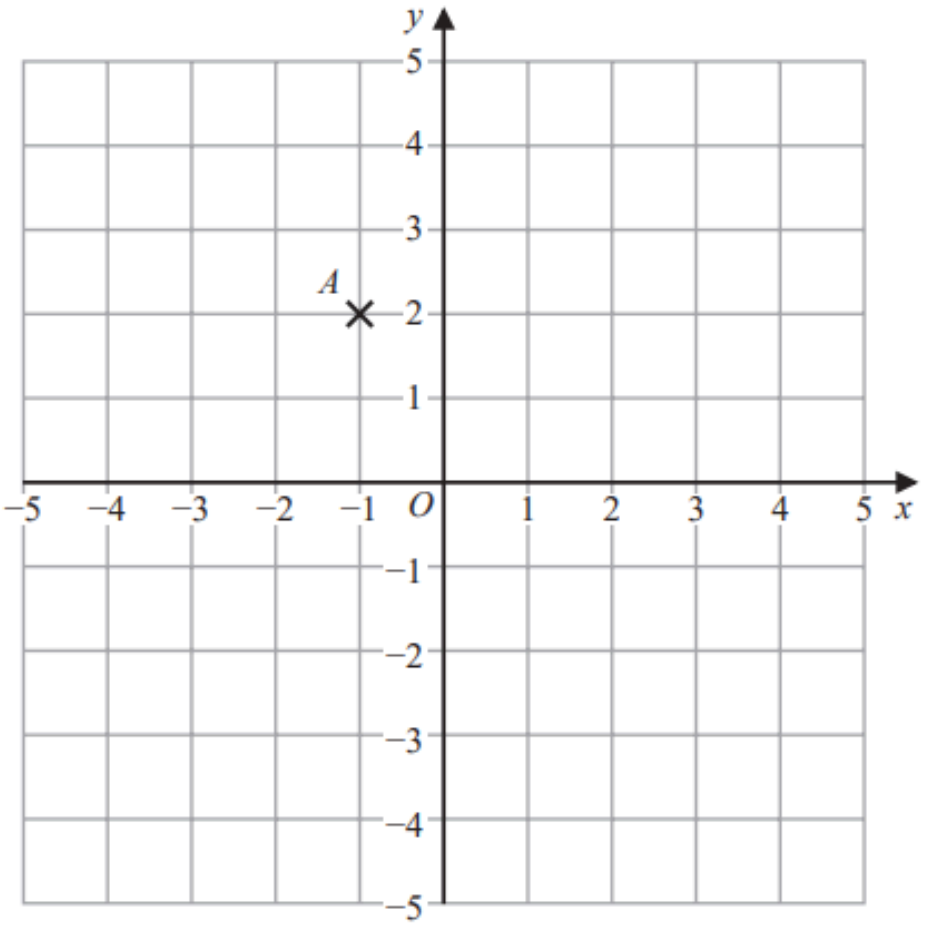
C is closer to B than to A.

The coordinates of C are whole numbers.

Work out the coordinates of C.



Find the coordinates of the midpoint of PQ.



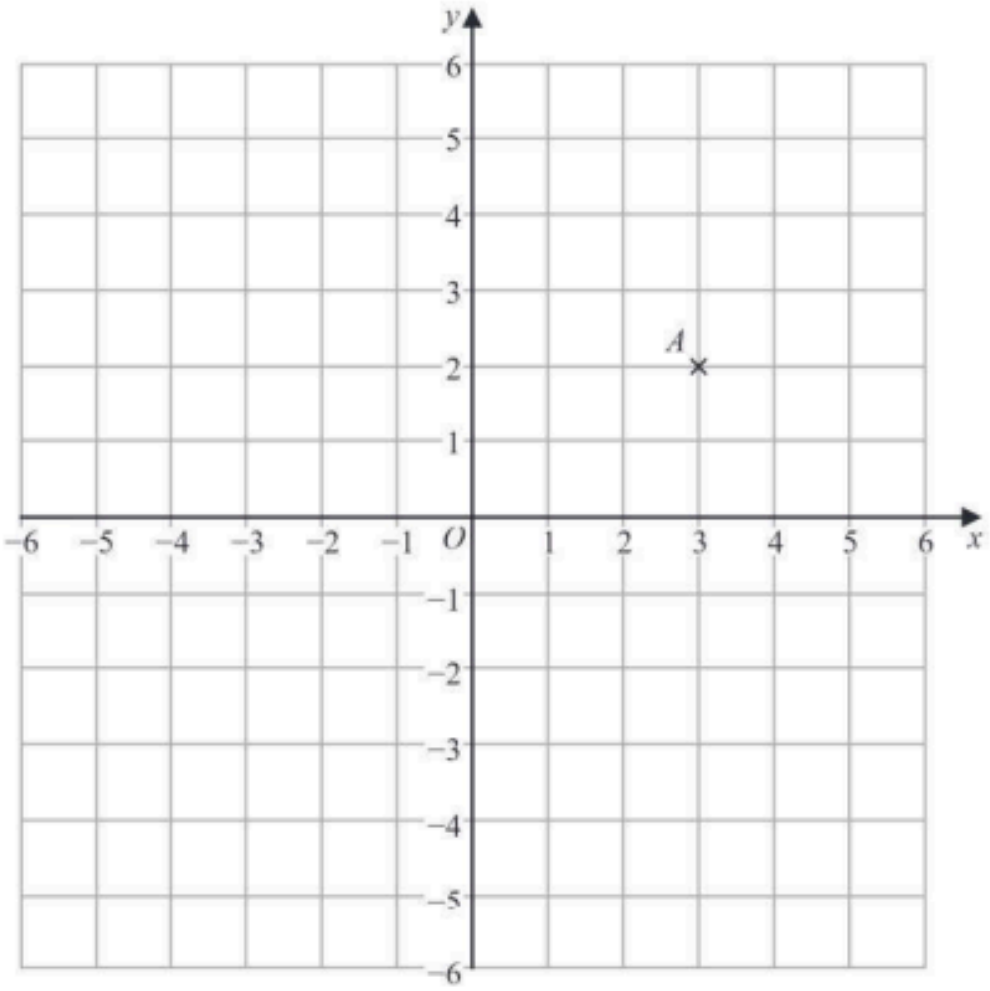
(a) Write down the coordinates of point A.

(.....)

(b) On the grid, mark with a cross (×) the point (1, 4)
Label this point B.

(c) On the grid, draw the line with equation $y = -3$

3 Here is a centimetre grid.



(a) Write down the coordinates of point A.

(..... , ...)

(1)

(b) On the grid, mark with a cross (×) the point with coordinates (−4, 3)
Label this point B.

(1)

(c) On the grid, draw the circle with
centre (1, −1)
and radius 4 cm.

(2)

The points L, M and N are such that LMN is a straight line.

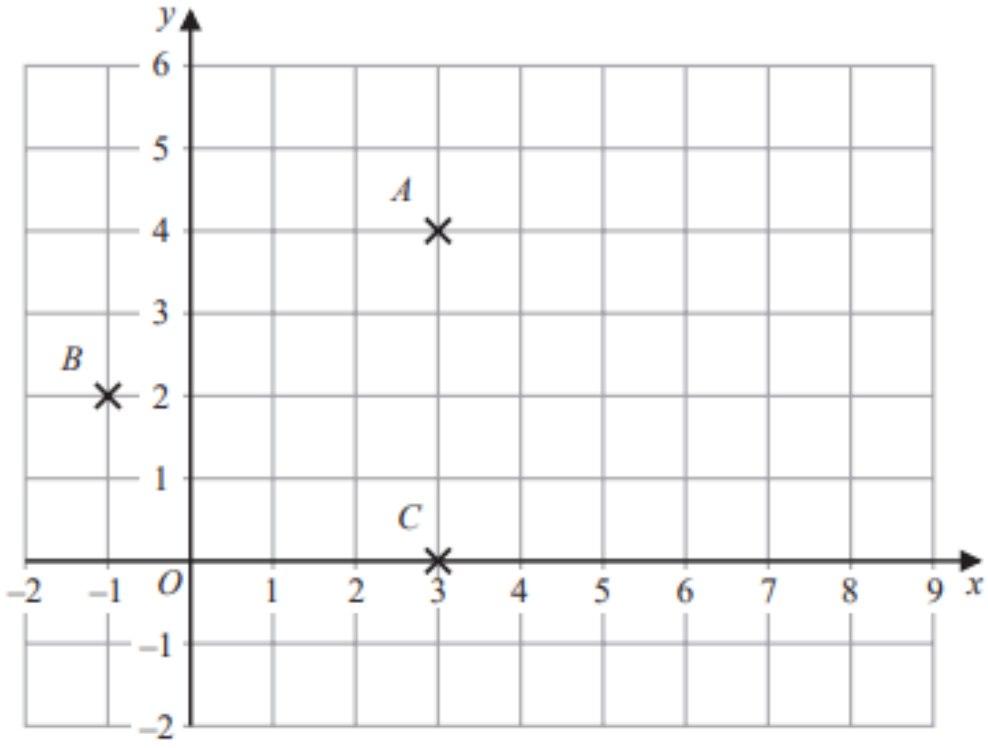
The coordinates of L are $(-3, 1)$

The coordinates of M are $(4, 9)$

Given that $LM : MN = 2 : 3$,

find the coordinates of N.

The diagram shows three points, A, B and C, on a grid.



(a) Write down the coordinates of

(i) point A

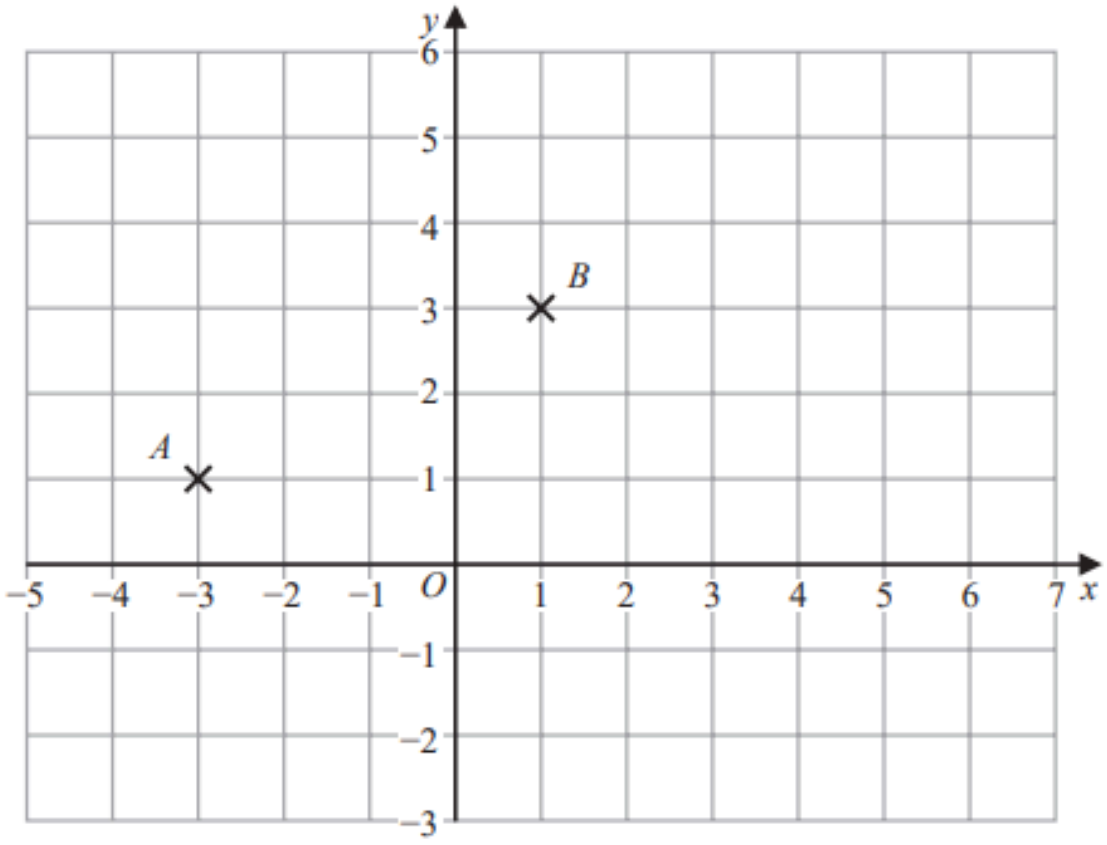
(ii) point B

D is the point such that $ABCD$ is a rhombus.

(b) On the grid, mark with a cross (×) the point D
Label this point D

(c) Find the coordinates of the midpoint of AB

The diagram shows points A and B marked on a grid of squares.



(a) On the grid, draw the line with equation $y = -2$

M is the midpoint of AB

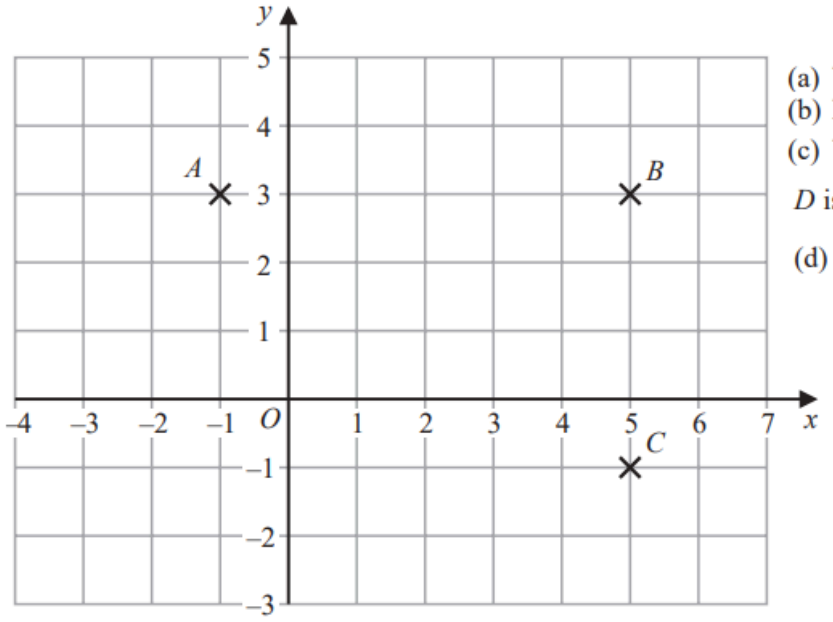
(b) Find the coordinates of M

(..... , ...)

D is the point with coordinates $(5, d)$ where $d > 0$
The triangle ABD is an isosceles triangle.

(c) Find the value of d

The three points A, B and C are marked on a centimetre grid.



(a) Write down the coordinates of A

(b) Find the coordinates of the midpoint of BC

(c) Work out the area of triangle ABC

D is the point on the grid so that $ABCD$ is a rectangle

(d) On the grid, mark with a cross (×) the point D
Label this point D

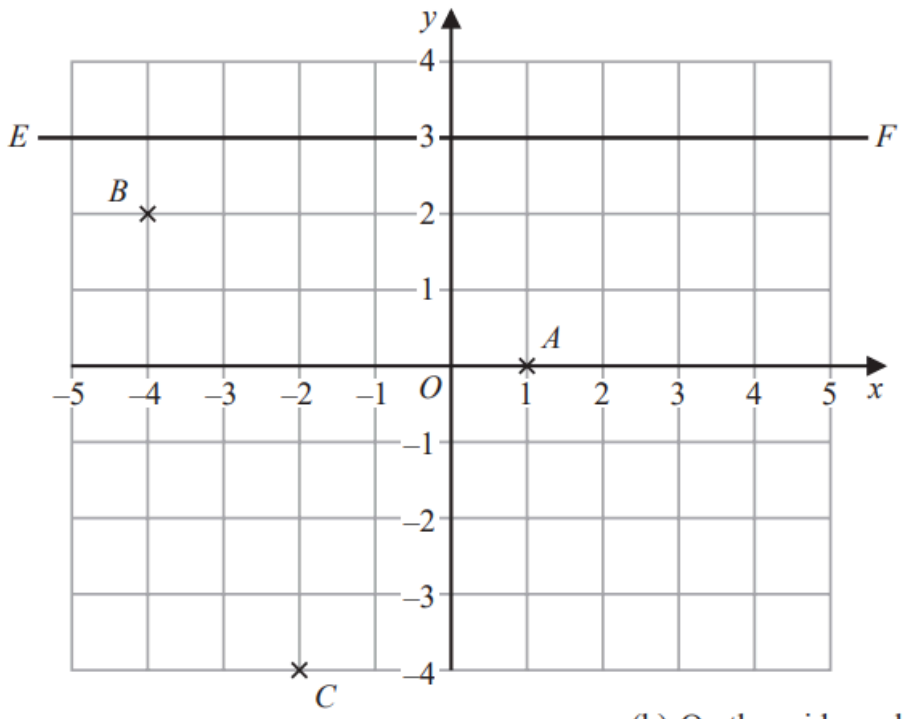
The points A and B are on a coordinate grid.

The coordinates of A are (6, 4)
The coordinates of B are $(17, j)$ where j is a constant.

The midpoint of AB has coordinates $(k, 15)$ where k is a constant.

Find the value of j and the value of k

The diagram shows three points, A, B and C, and a line EF on a grid.



(a) Write down the coordinates of the point A

The coordinates of the point D are (3, –2)

(b) On the grid, mark with a cross (×) the position of D
Label the cross D

(c) Find the coordinates of the midpoint of BC

(d) Write down the equation of the line EF