

Name

ANSWERS

Class



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Coordinates

(9 – 1) Topic booklet

Foundation

These questions have been collated from previous years GCSE Mathematics papers.

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser.

Total Marks

Instructions

- Use black ink or ball-point pen.
- Fill in the boxes at the top of this page with your name, centre number and candidate number.
- Answer all questions.
- Answer the questions in the spaces provided
 - there may be more space than you need.
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must show all your working out.
- If the question is a 1F question you are not allowed to use a calculator.
- If the question is a 2F or a 3F question, you may use a calculator to help you answer.

Information

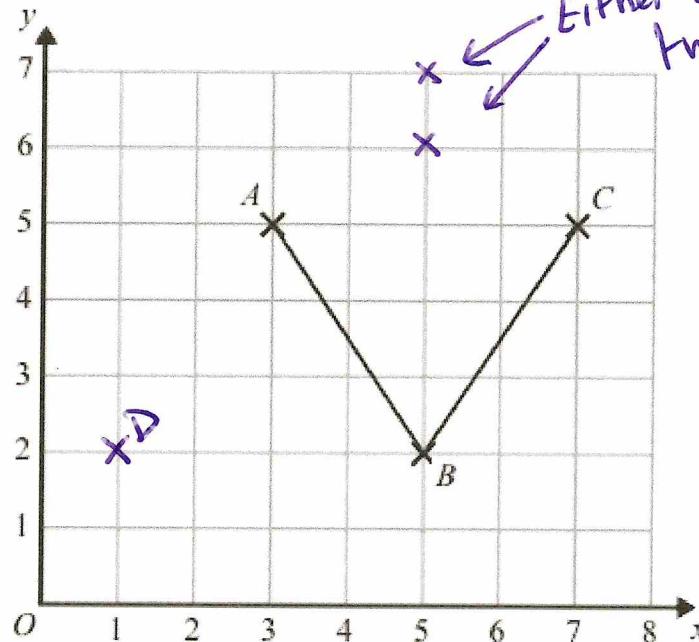
- The marks for each question are shown in brackets
 - use this as a guide as to how much time to spend on each question.

Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Answer ALL questions
Write your answers in the space provided.
You must write down all the stages in your working.

4 Here is a grid showing the points A , B and C .



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

(3, 5)

(1)

(b) On the grid, mark with a cross (\times) the point $(1, 2)$.
Label this point D .

(1)

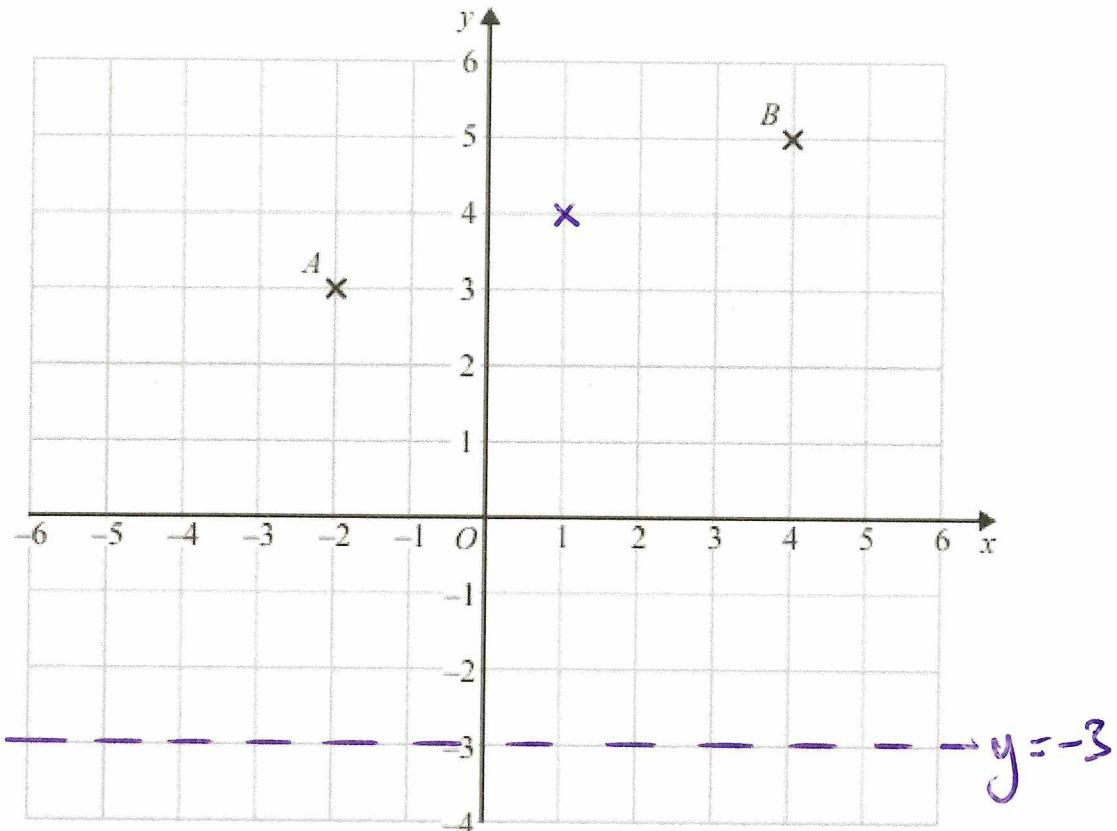
(c) On the grid, mark with a cross (\times) a point E , so that the quadrilateral $ABCE$ is a kite.

(1)

Sample 1 – Paper 3F

(Total for Question 4 is 3 marks)

5



(a) Write down the coordinates of point B.

$$\left(\underline{\hspace{1cm}}, \underline{\hspace{1cm}} \right) \quad (1)$$

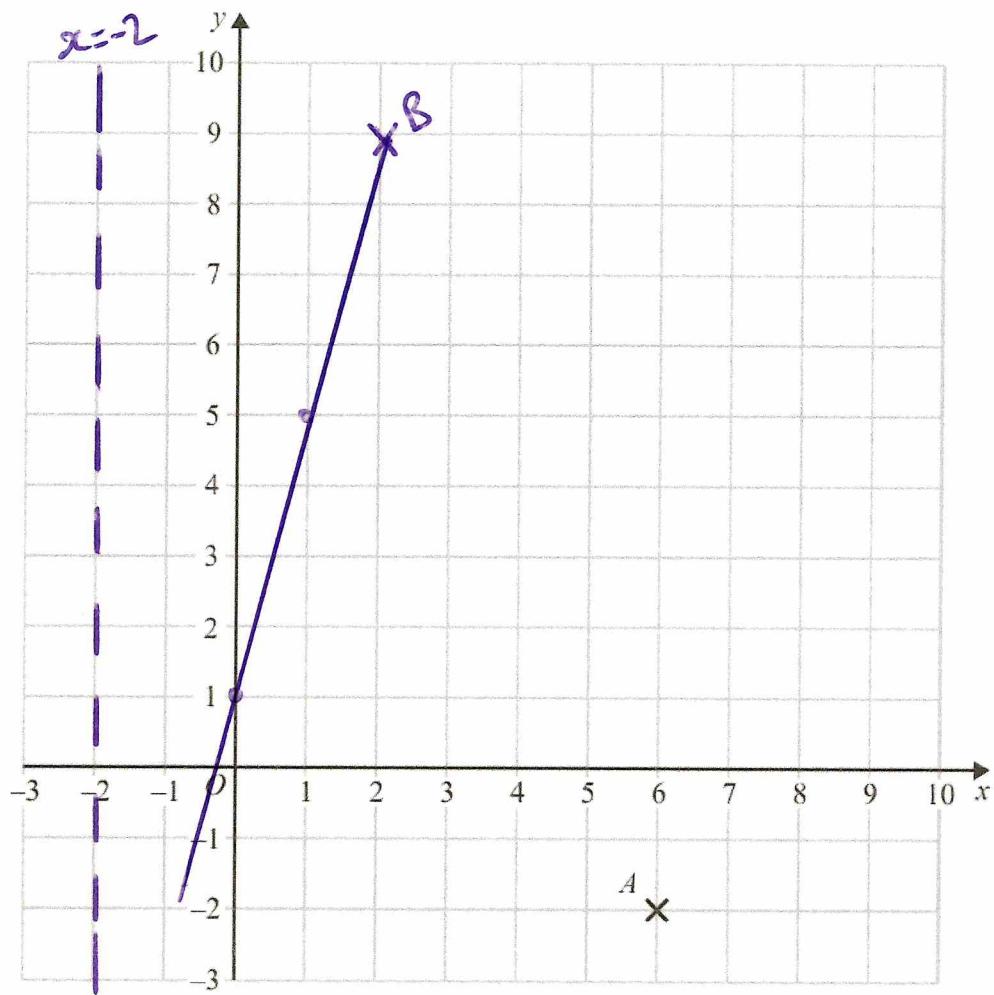
(b) Find the coordinates of the midpoint of AB .

$$\left(\underline{\hspace{1cm}}, \underline{\hspace{1cm}} \right) \quad (1)$$

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

(1)

7



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

$$(\underline{6}, \underline{-2})$$

(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.

Yes it does

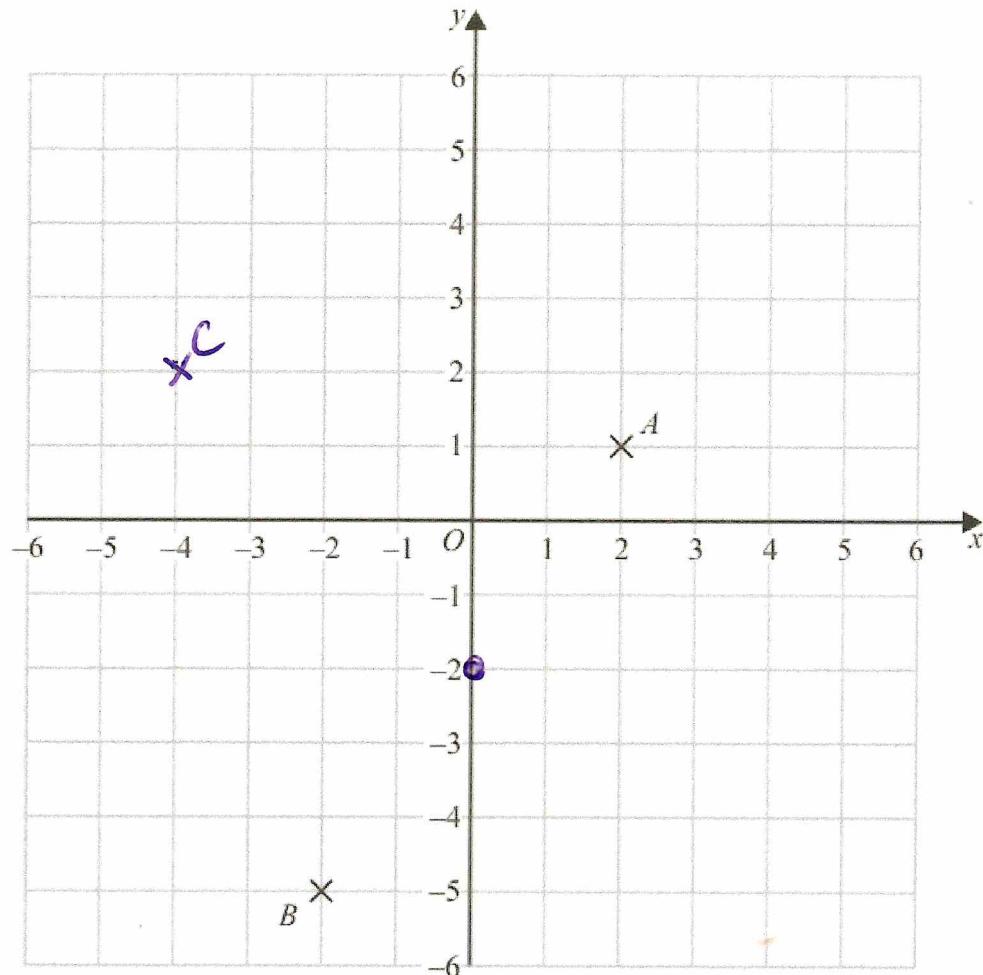
$$9 = 4(2) + 1$$

(1)

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

(1)

8 The points A and B are shown on the grid.



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

$$(\underline{2}, \underline{1})$$

(1)

(b) Find the coordinates of the midpoint of AB .

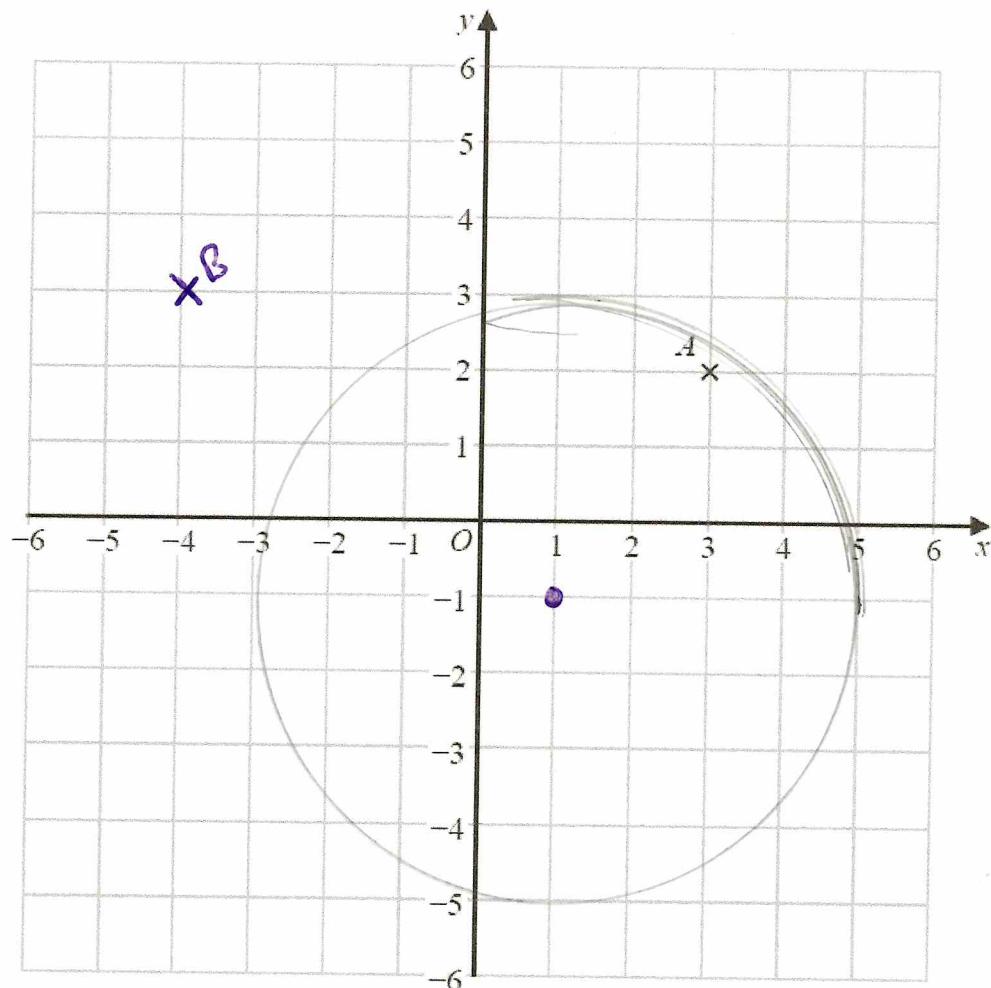
$$(\underline{0}, \underline{-2})$$

(2)

(c) On the grid, mark with a cross (\times) the point with coordinates $(-4, 2)$
Label this point C .

(1)

8 Here is a centimetre grid.



(a) Write down the coordinates of point A.

(3, 2)
(1)

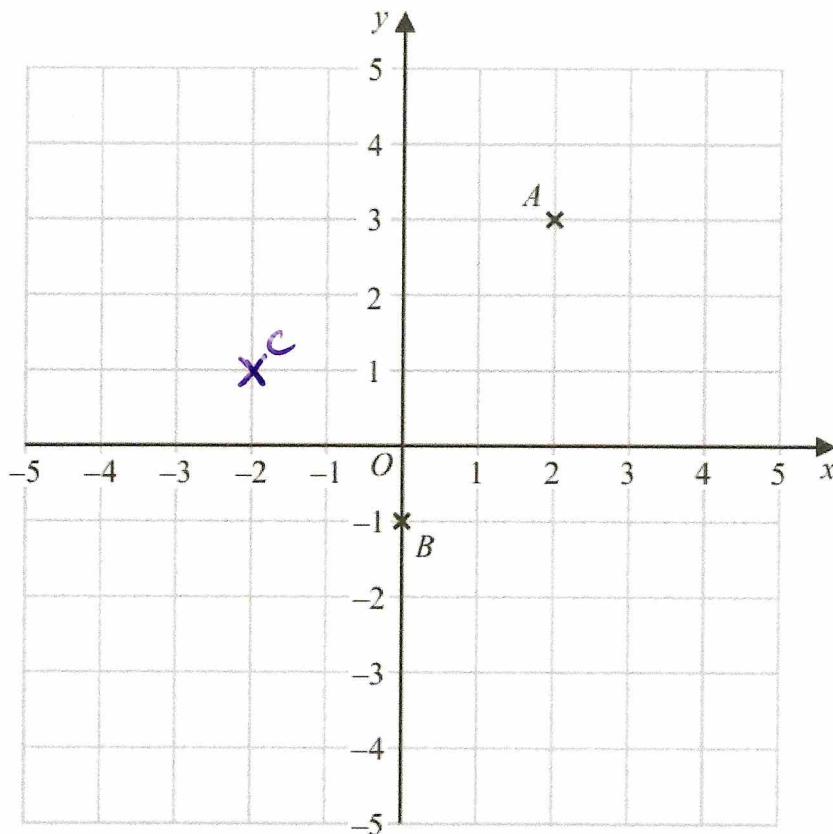
(b) On the grid, mark with a cross (x) the point with coordinates $(-4, 3)$
Label this point B.

(1)

(c) On the grid, draw the circle with

centre $(1, -1)$
and radius 4 cm.

(2)



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

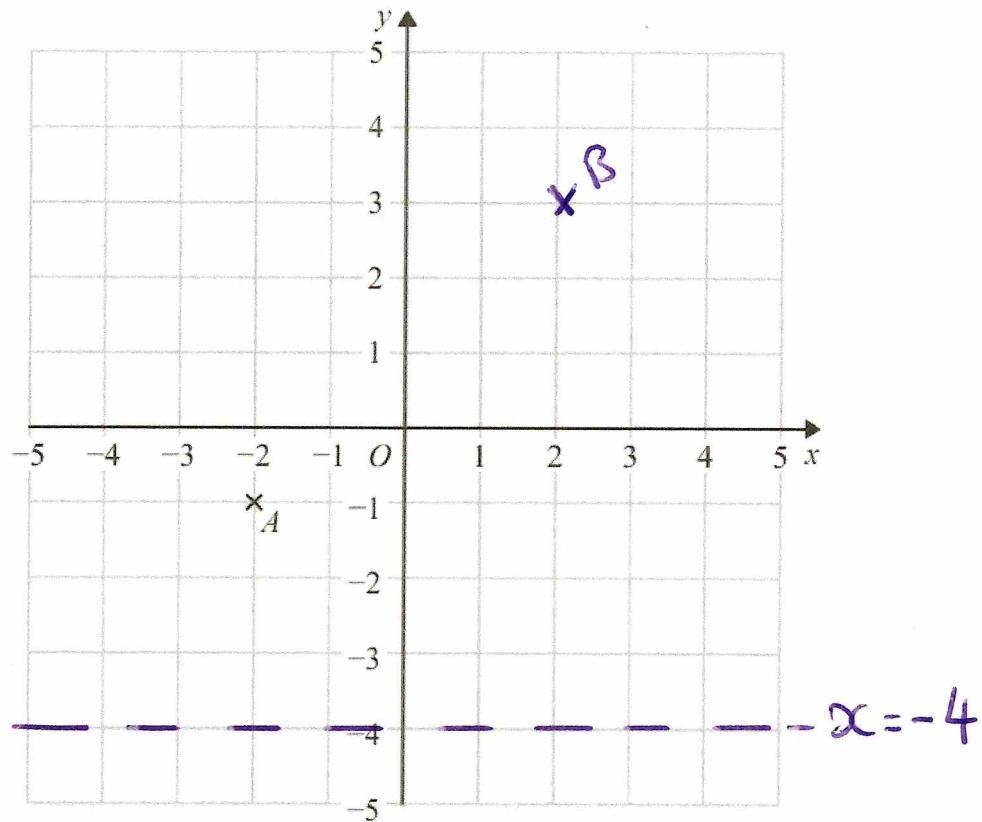
$$(\underline{2}, \underline{3}) \quad (1)$$

(b) Write down the coordinates of the point B .

$$(\underline{0}, \underline{-1}) \quad (1)$$

(c) On the grid, mark with a cross (\times) the point $(-2, 1)$
Label this point C .

(1)



(a) Write down the coordinates of point A.

$$(-2, -1) \quad (1)$$

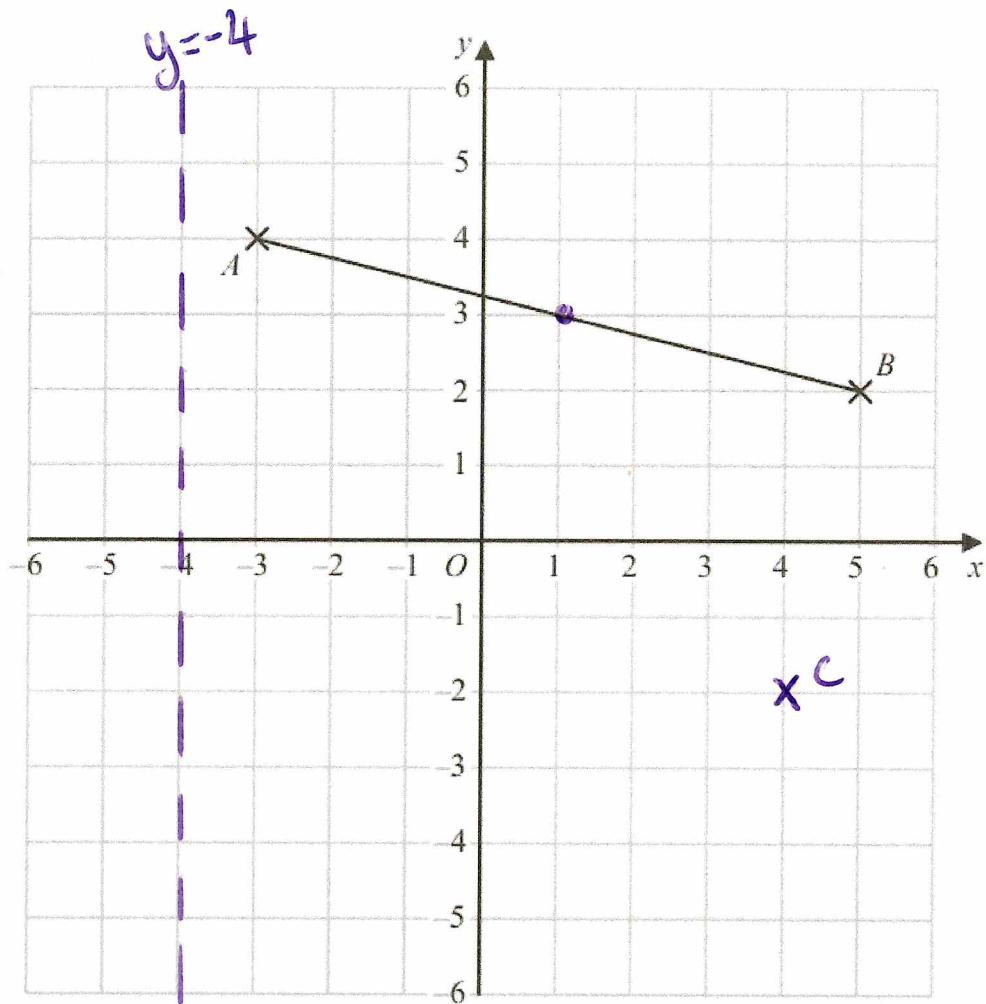
(b) On the grid, mark with a cross (x) the point (2, 3)
Label this point B.

(1)

(c) On the grid, draw the line with equation $x = -4$

(1)

9



(a) Write down the coordinates of point B.

$$(\underline{\hspace{2cm}} \underline{\hspace{2cm}}) \quad (1)$$

(b) Plot the point with coordinates $(4, -2)$
Label this point C.

(1)

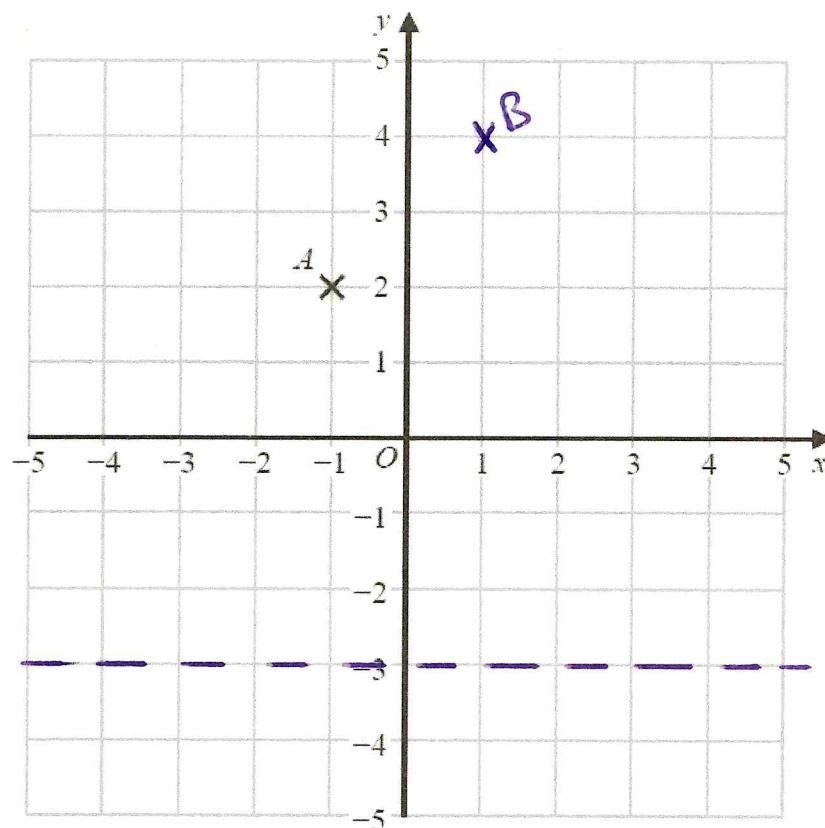
(c) Write down the coordinates of the midpoint of AB.

$$(\underline{\hspace{2cm}} \underline{\hspace{2cm}}) \quad (1)$$

(d) Draw the line with equation $y = -4$

(1)

9



(a) Write down the coordinates of point A.

$$(-1, 2) \quad (1)$$

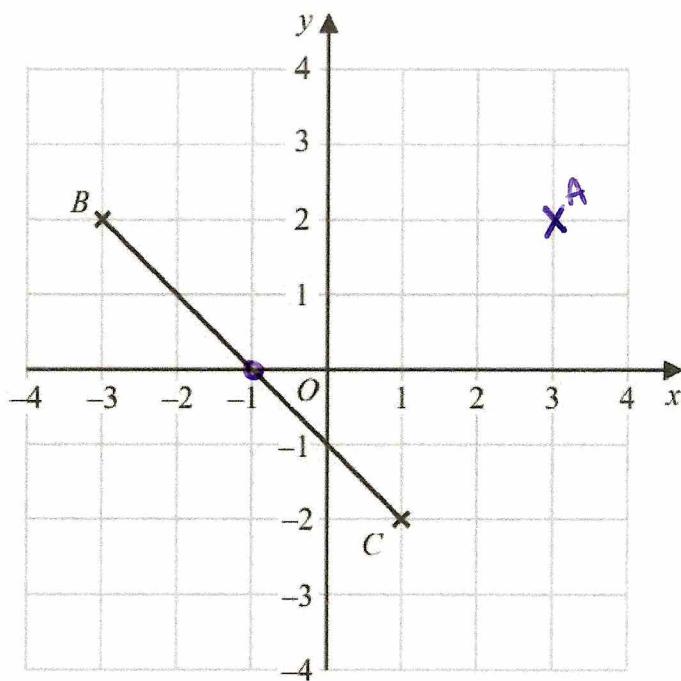
(b) On the grid, mark with a cross (×) the point (1, 4)
Label this point B.

(1)

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

(1)

10



(a) Plot the point with coordinates $(3, 2)$

Label this point A .

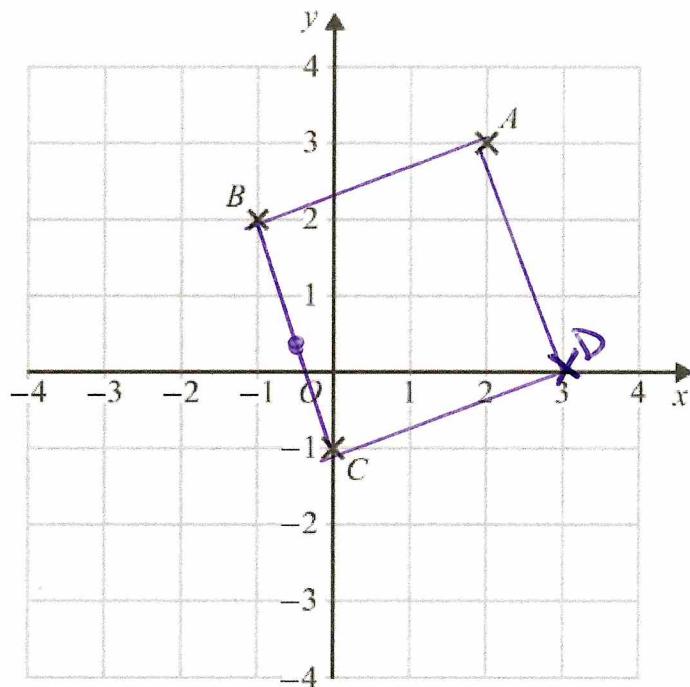
(1)

(b) Write down the coordinates of the midpoint of BC .

(.....,)
(1)

November 2019 – Paper 1F

(Total for Question 10 is 2 marks)



(a) Write down the coordinates of point C.

$$(-1, -1) \quad (1)$$

ABCD is a square.

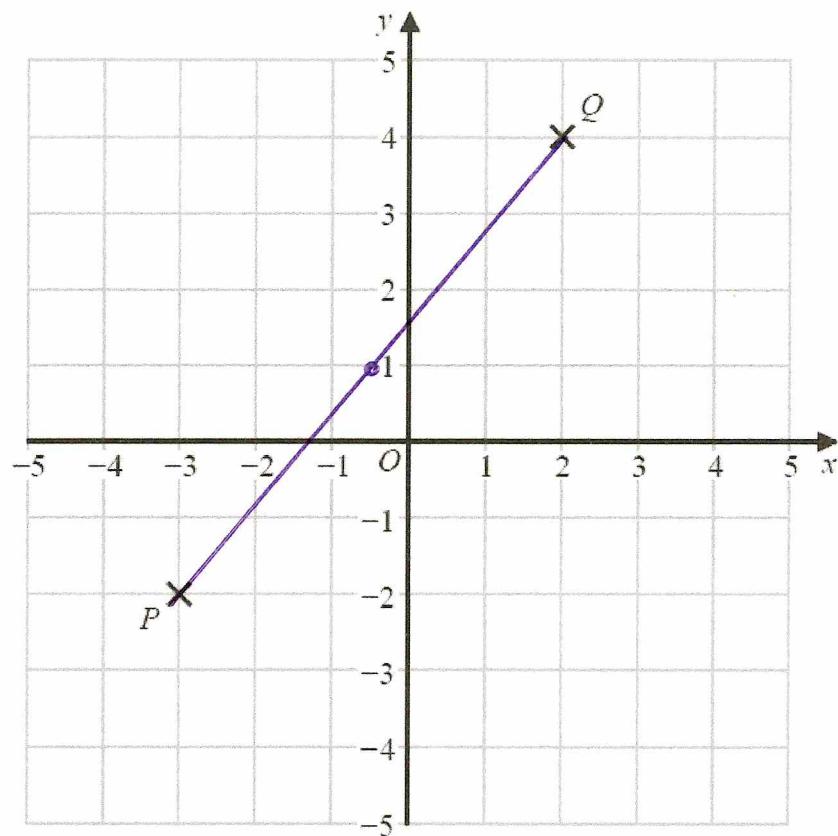
(b) On the grid, mark with a cross (X) the point D so that ABCD is a square.

(1)

(c) Write down the coordinates of the midpoint of the line segment BC.

$$(-0.5, 0.5) \quad (1)$$

15



Find the coordinates of the midpoint of PQ .

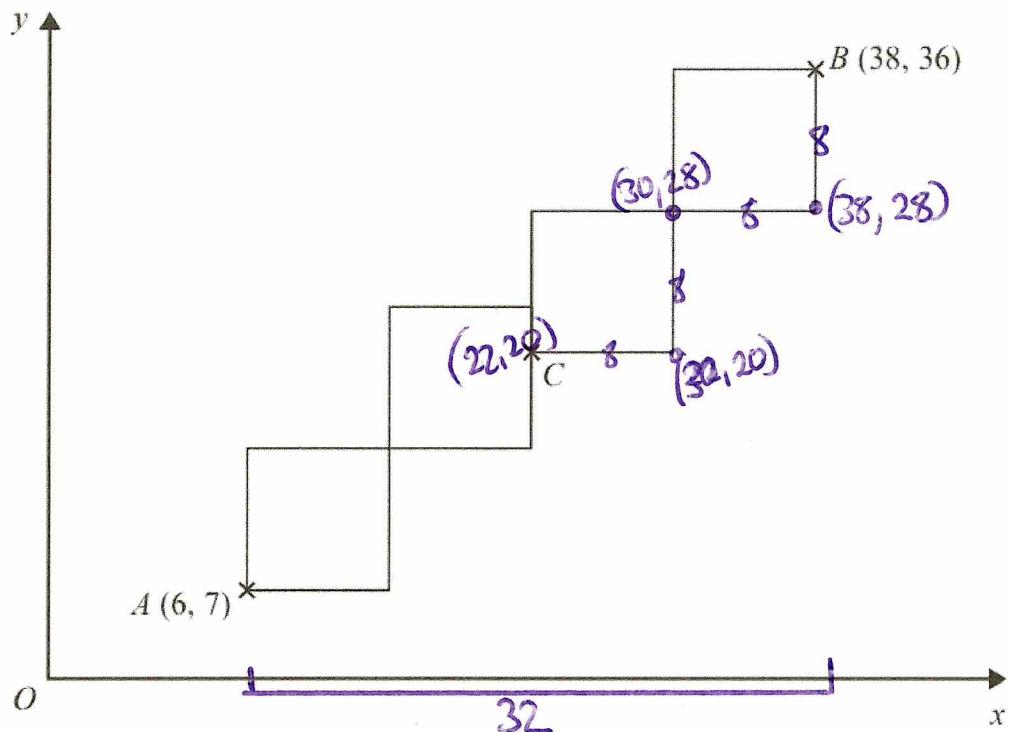
(.....,

November 2022 – 1F

(Total for Question 15 is 2 marks)

24 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 .

Each square = 8

(22, 20)