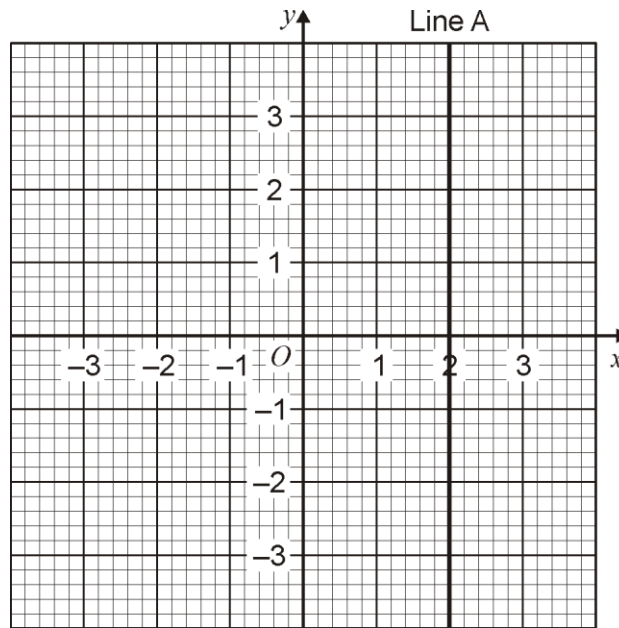


Q1.



(a) Circle the equation of line A.

$y = 2$

$x = 2$

$x + y = 2$

$y = x + 2$

(1)

(b) On the grid draw the line $y = x$

(1)

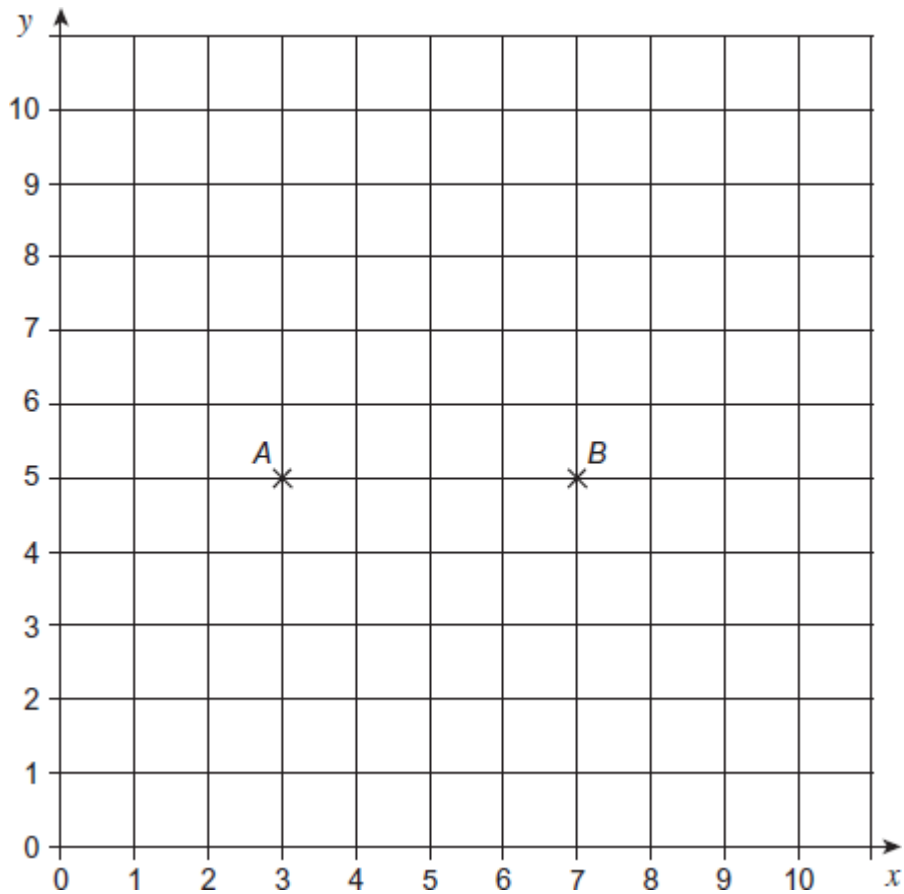
(c) Write down the coordinates of the point where the line $y = x$ crosses line A.

Answer (..... ,)

(1)

(Total 3 marks)

Q2. Points A and B are shown on the centimetre grid.



(a) Draw a rectangle $ABCD$ on the grid with area 12 cm^2 .

(2)

(b) Write down the coordinates of point C and point D .

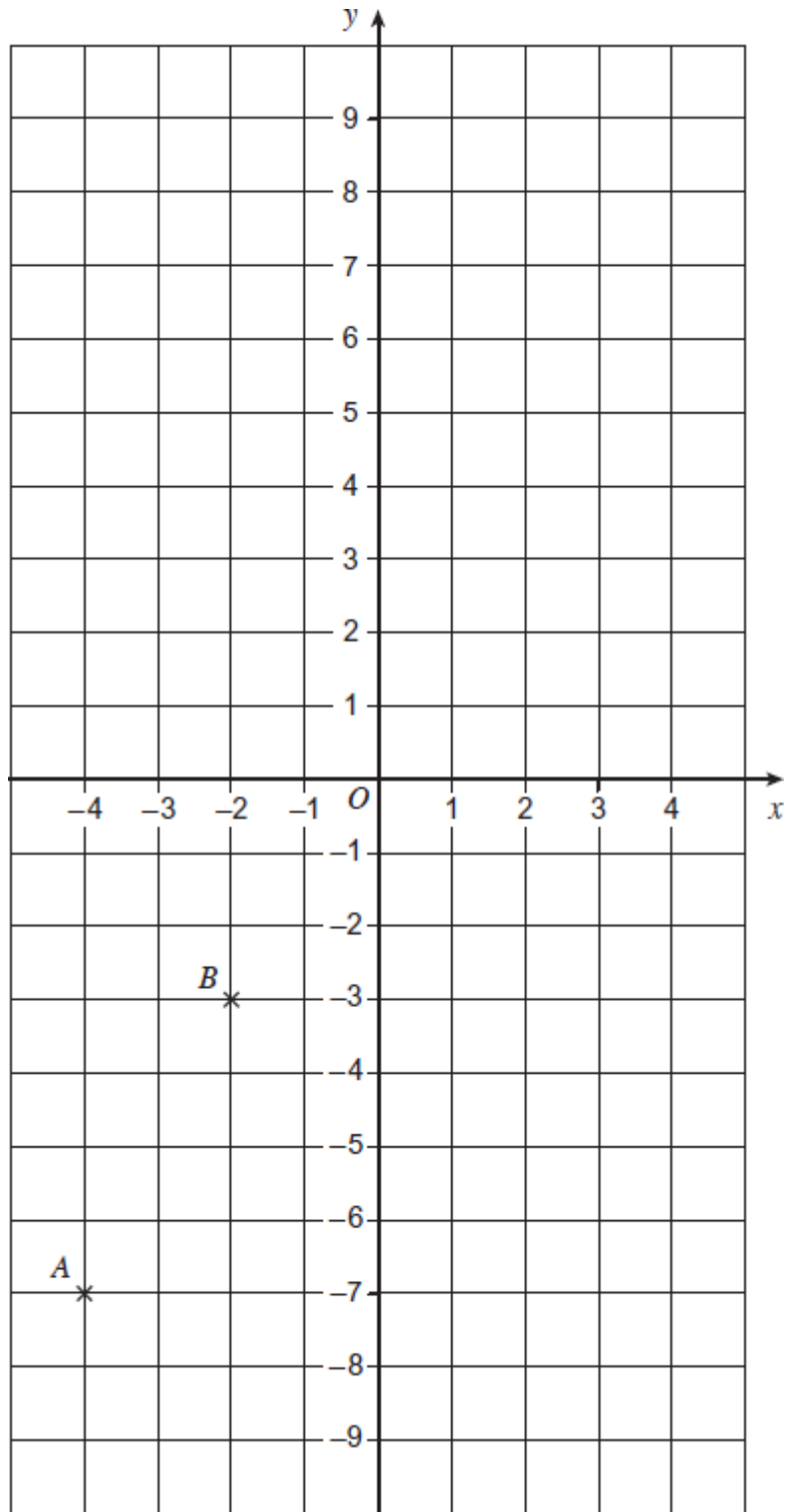
Answer C (..... ,) and D (..... ,)

(2)

(Total 4 marks)

Q3. Points A $(-4, -7)$ and B $(-2, -3)$ are plotted.

A and B lie on the line $y = 2x + 1$



Write down the coordinates of **two** other points on the line $y = 2x + 1$

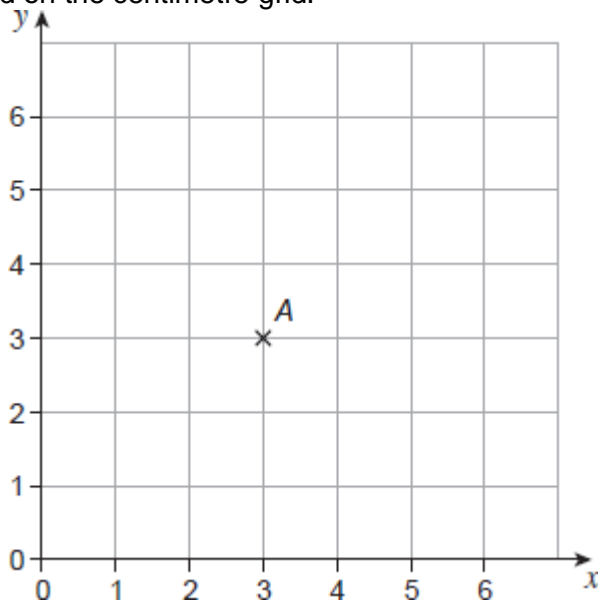
Answer (..... ,)

(..... ,)

(Total 2 marks)

Q4.

Point $A(3, 3)$ is plotted on the centimetre grid.



(a) Plot B at $(5, 1)$.

(1)

(b) C and D are each

2 cm from A
and
 2 cm from B .

Plot C and D on the grid.

(2)

(c) Join C and D with a straight line.

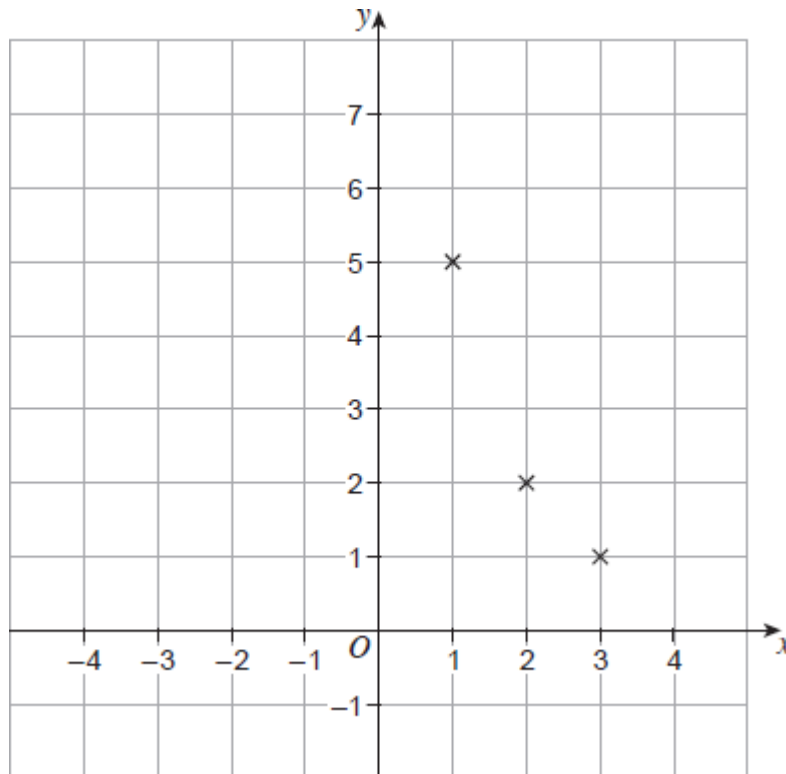
Write down the coordinates of the midpoint of the line.

Answer (..... ,)

(1)

(Total 4 marks)

Q5.



- (a) Three points are shown on the grid.

Circle the point which does **not** lie on the line $2x + y = 7$

(1)

- (b) Work out the coordinates of the point where the line $2x + y = 7$ crosses the x -axis.

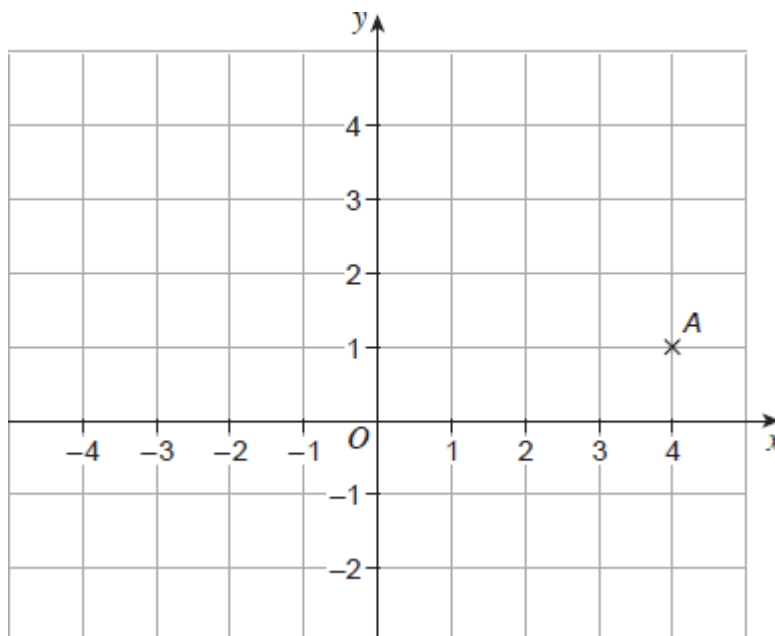
Answer (..... ,)

(2)

(Total 3 marks)

Q6.

Point A is marked on the grid.



(a) What are the coordinates of A?

Answer (..... ,)

(1)

(b) Plot and label the point B (-2, 4).

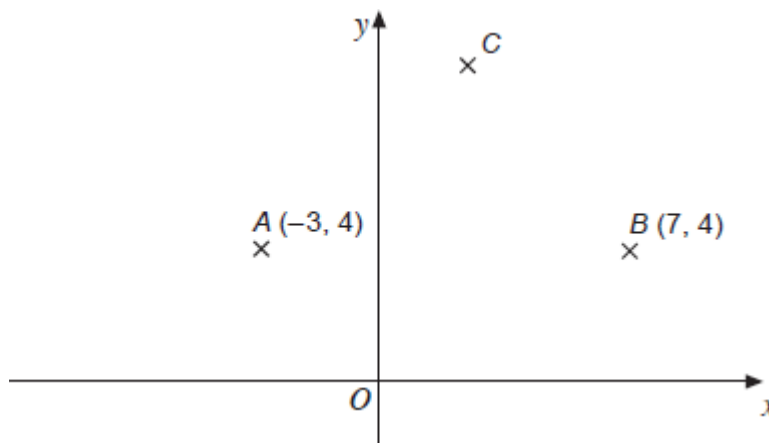
(1)

(Total 2 marks)

Q7.

Points A, B and C are plotted.

Not drawn accurately



They form an **isosceles** triangle such that $AC = BC$
 A is $(-3, 4)$ and B is $(7, 4)$.
 The area of triangle ABC is 20 square units.

Work out the coordinates of C.
 You **must** show your working, some of which may be on the diagram.

.....

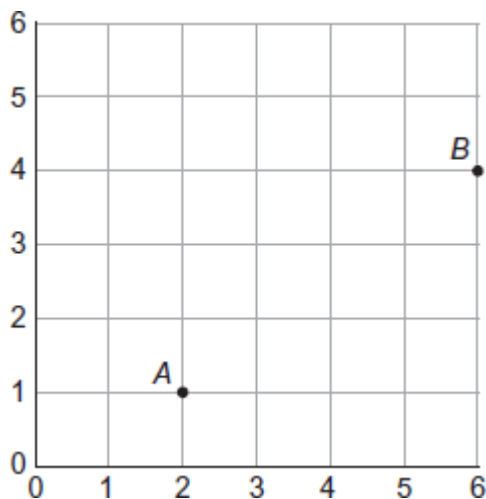
Answer (..... ,)

(Total 4 marks)

Q8.

Here is a scale diagram of a village.
 The grid lines are the roads in the village.

Scale 1 centimetre represents 100 metres



(a) Alan's house, A, has coordinates $(2, 1)$.

Write down the coordinates of Ben's house, B.

Answer (..... ,)

(1)

(b) Alan walks along the roads from A to B.

Work out the **shortest** possible distance that he can walk.

.....

Answer metres

(2)

(c) Colin's house, C , is in the village.

The shortest distance along the roads from C to A is 600 metres.

The shortest distance along the roads from C to B is 500 metres.

Work out the coordinates of C .

Answer (..... ,)

(2)

(Total 5 marks)

Q9. A is the point $(2, 9)$

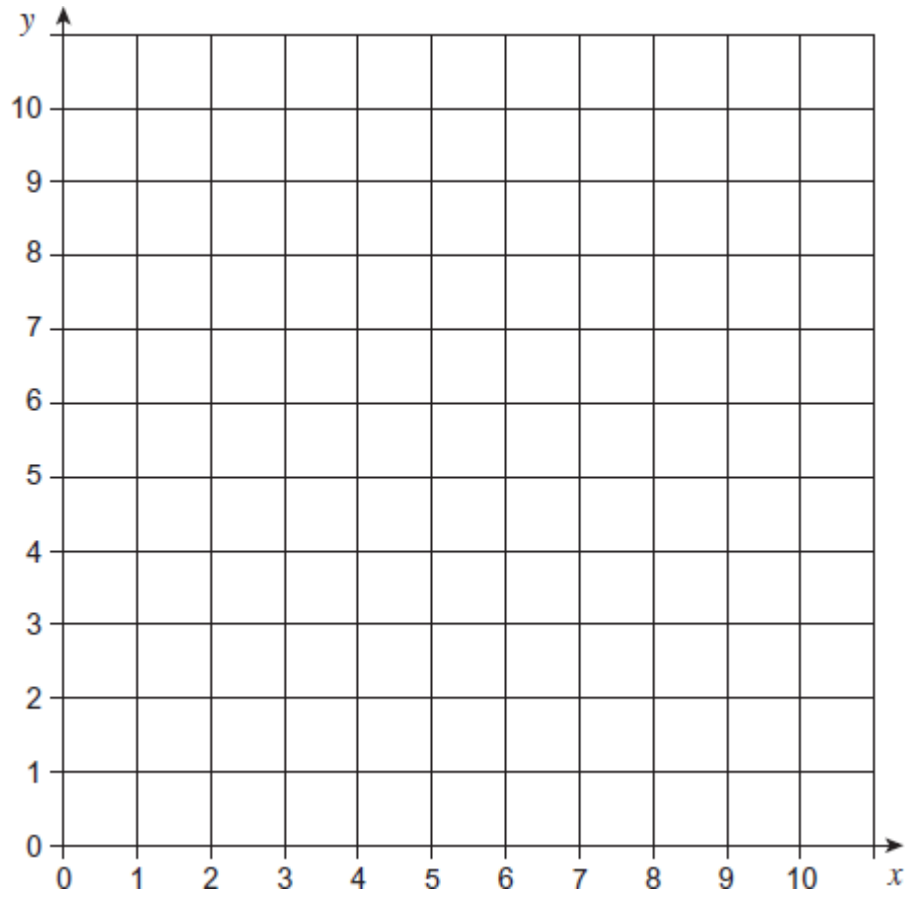
B is the point $(6, 5)$

ABC is a straight line.

$AB = BC$

Work out the coordinates of point C .

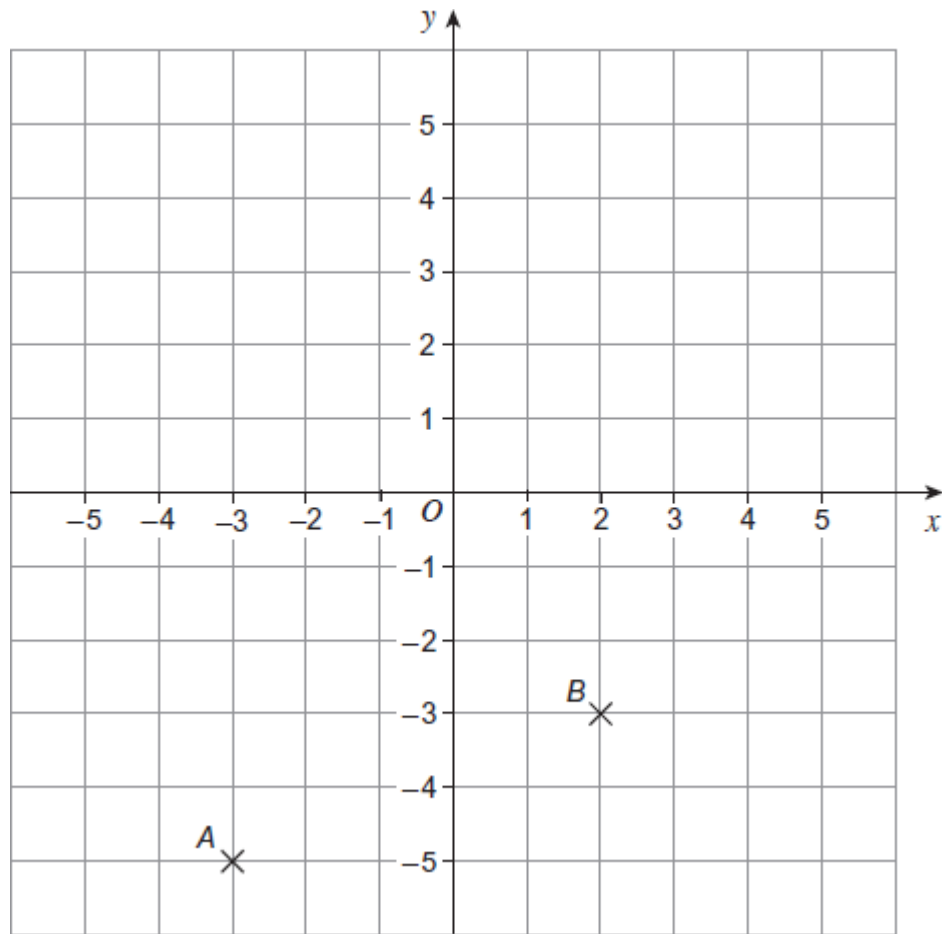
You may use the grid to help you.



Answer (..... ,)

(Total 2 marks)

Q10. Points *A* and *B* are shown on the grid.



- (a) Write down the coordinates of A and B .

Answer A (..... ,)

B (..... ,)

(2)

- (b) Plot point C on the grid so that

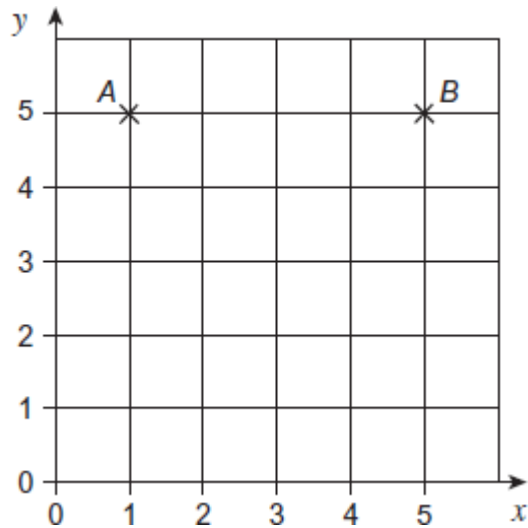
the x -coordinate of C is less than the x -coordinate of A

and the y -coordinate of C is positive and even.

(2)

(Total 4 marks)

Q11. Points A and B are shown on the centimetre grid.



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

Answer (..... ,)

(1)

(b) Point C is plotted so that

its y -coordinate is 3

and

ABC is a right-angled triangle.

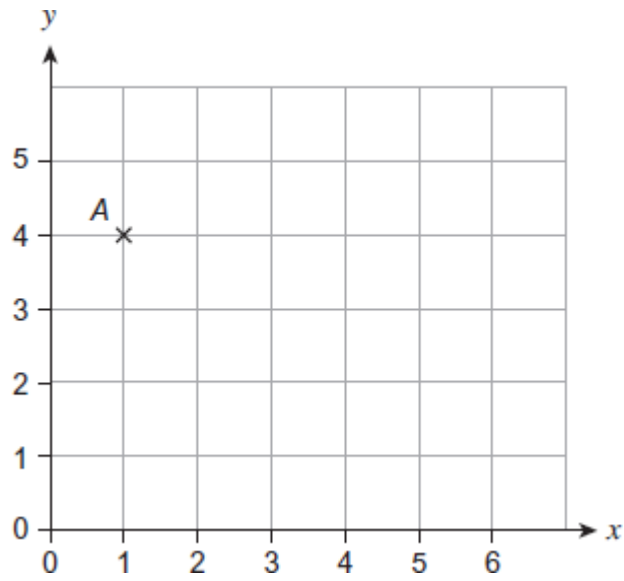
Write down the coordinates of **three** possible points for C .

Answer (..... , 3), (..... , 3) and (..... , 3)

(3)

(Total 4 marks)

Q12.



(a) Write down the coordinates of A .

Answer (..... ,)

(1)

(b) M is the midpoint of the line AB .
 M is the point $(3, 4)$.

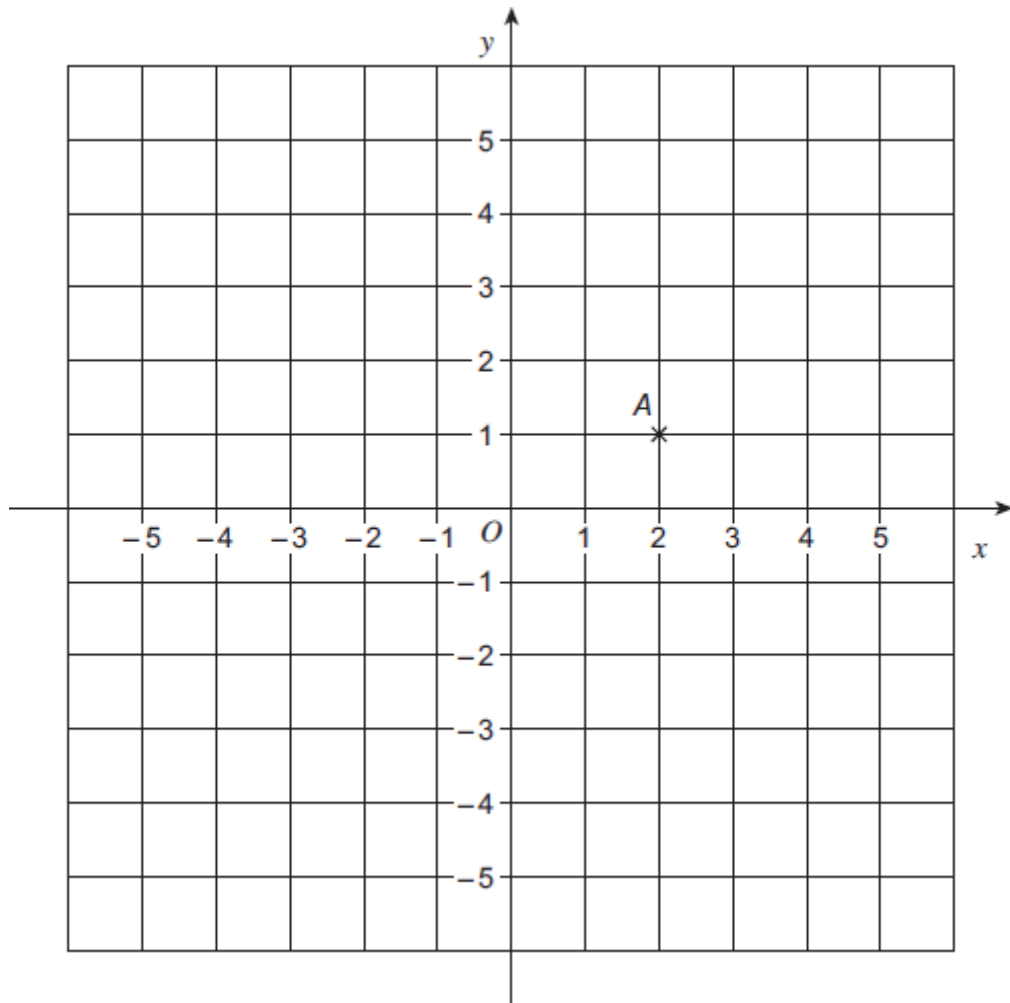
Plot the point B .

(2)

(Total 3 marks)

Q13.

Point A is shown on the centimetre grid.



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

Answer (..... ,)

(1)

(b) Plot *B* (-4,1) on the grid.

(1)

(c) *ABC* is a right-angled triangle.
It has an area of 12 cm^2 .

Mark a possible point *C* on the grid.

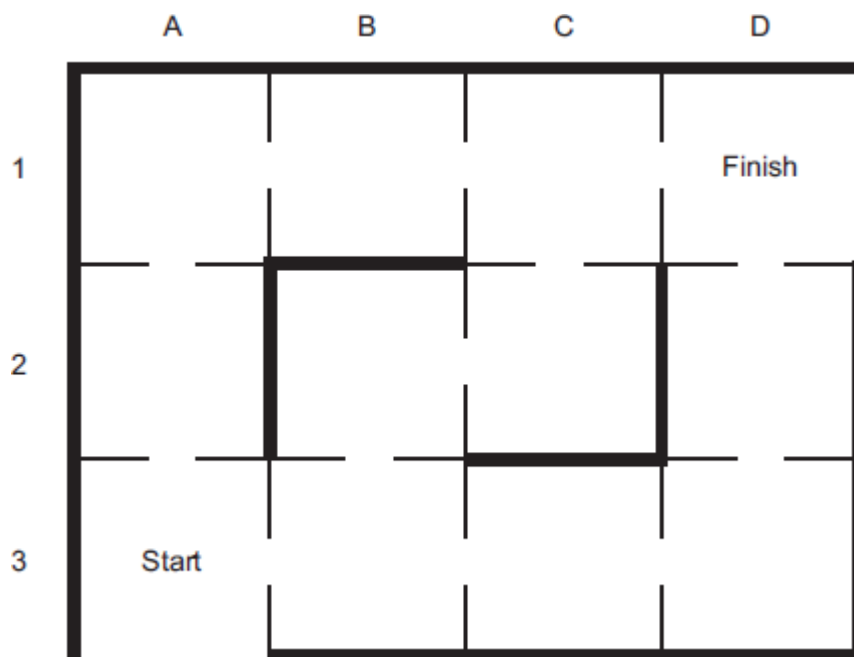
(2)

(Total 4 marks)

Q14.

(a) A maze has 12 rooms.

Walls without doors are shown as **————**
 Other walls have doors which are shown as gaps.



One path from Start to Finish is A3 → B3 → C3 → D3 → D2 → D1

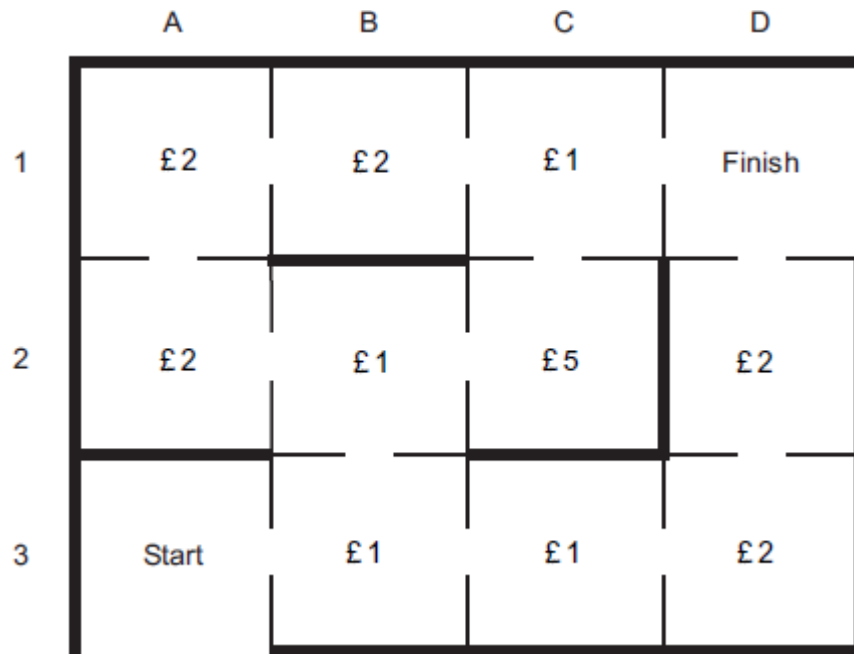
Complete these two paths through the maze.

First path A3 → B3 → B2 →

Second path A3 → A2 → A1 →

(2)

(b) This maze has money in some of the rooms.



(i) How much is in room B3?

£

(1)

(ii) Which room has £5?

Answer

(1)

(iii) Money is collected as you go through the maze from Start to Finish. You can only go through a room **once**.

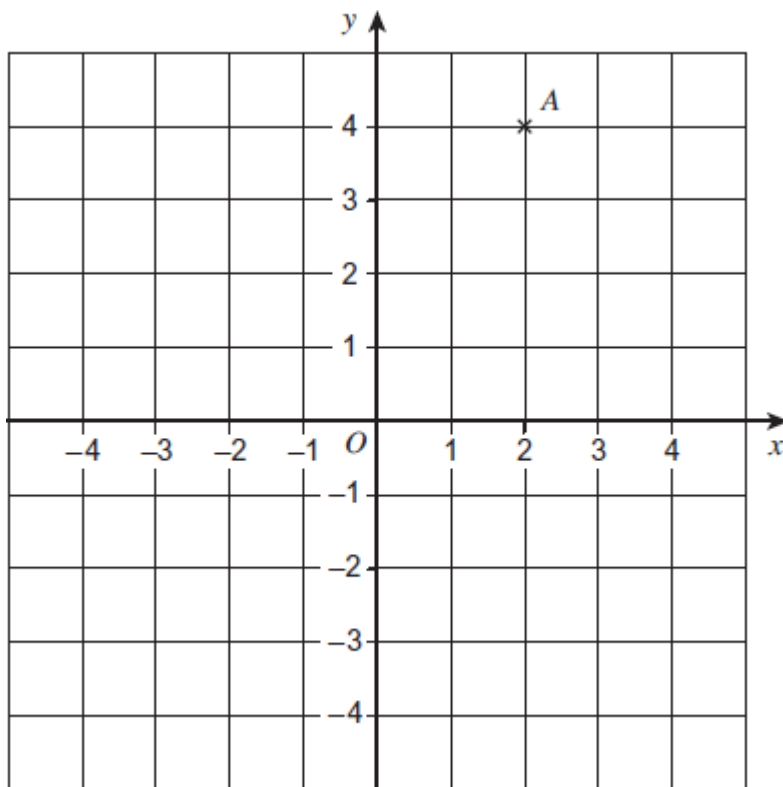
Complete the path that collects the most money.

A3 → B3 →

.....

(2)
 (Total 6 marks)

Q15.



(a) Write down the coordinates of point A.

Answer (..... ,)

(1)

(b) Plot the point $(-3, -1)$ on the grid.
Label it B.

(1)

(c) Point C has

- the same x -coordinate as point A
- the same y -coordinate as point B.

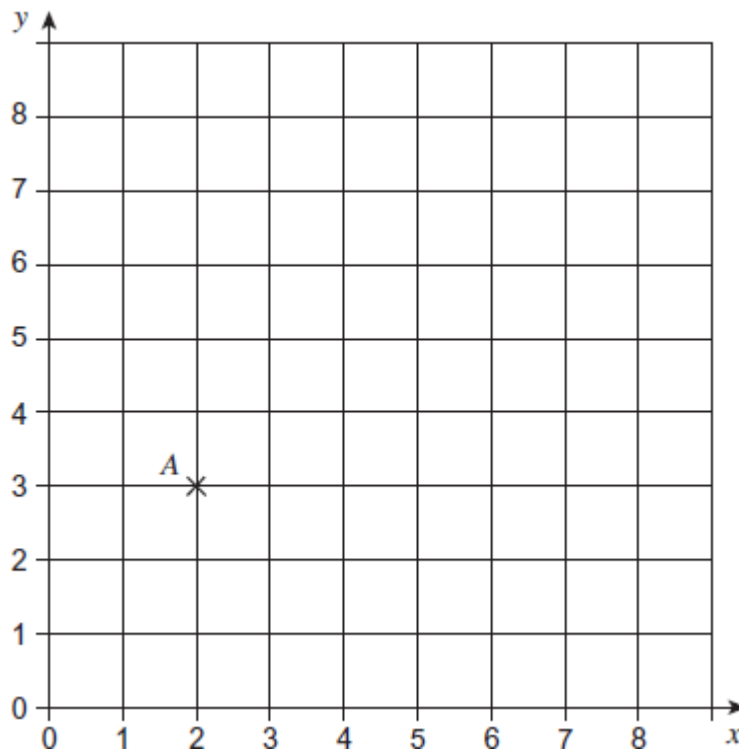
Write down the coordinates of point C.

Answer (..... ,)

(1)

(Total 3 marks)

Q16.



(a) Write down the coordinates of A.

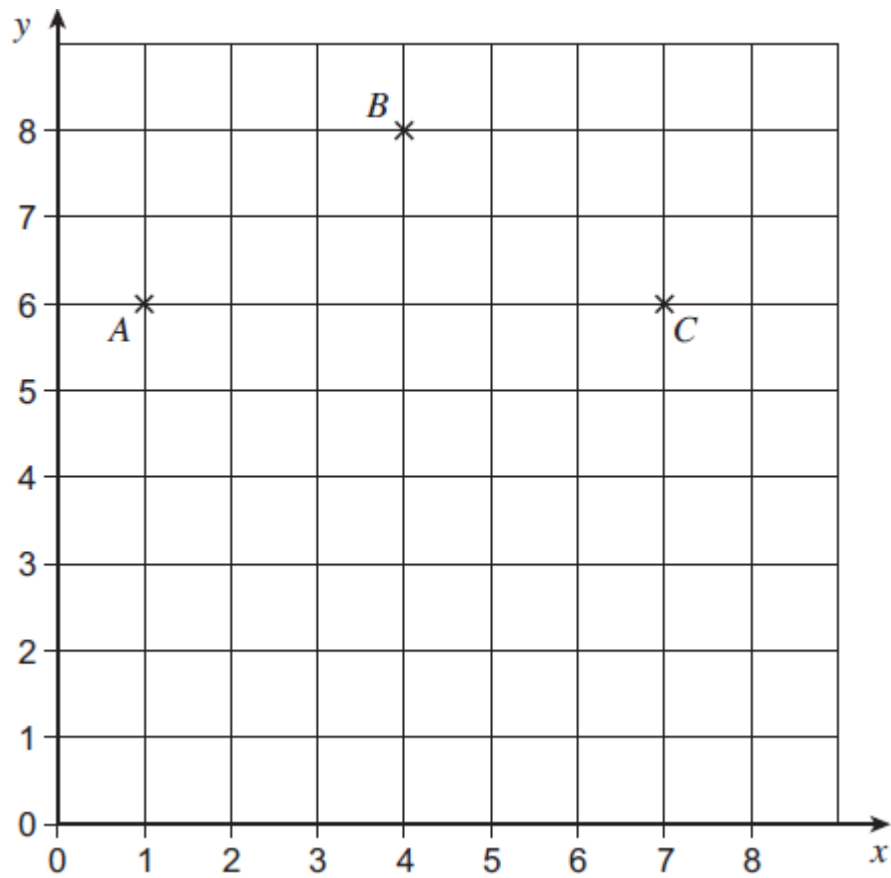
Answer (..... ,)

(1)

(b) Plot the point $B(8, 3)$ on the grid.

(1)
(Total 2 marks)

Q17. A , B and C are plotted on this centimetre grid.



(a) Write down the coordinates of A .

Answer(..... ,)

(1)

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

Answer(..... ,)

(1)

(c) Plot a point D on the grid so that $ABCD$ is a kite.

(1)
(Total 3 marks)