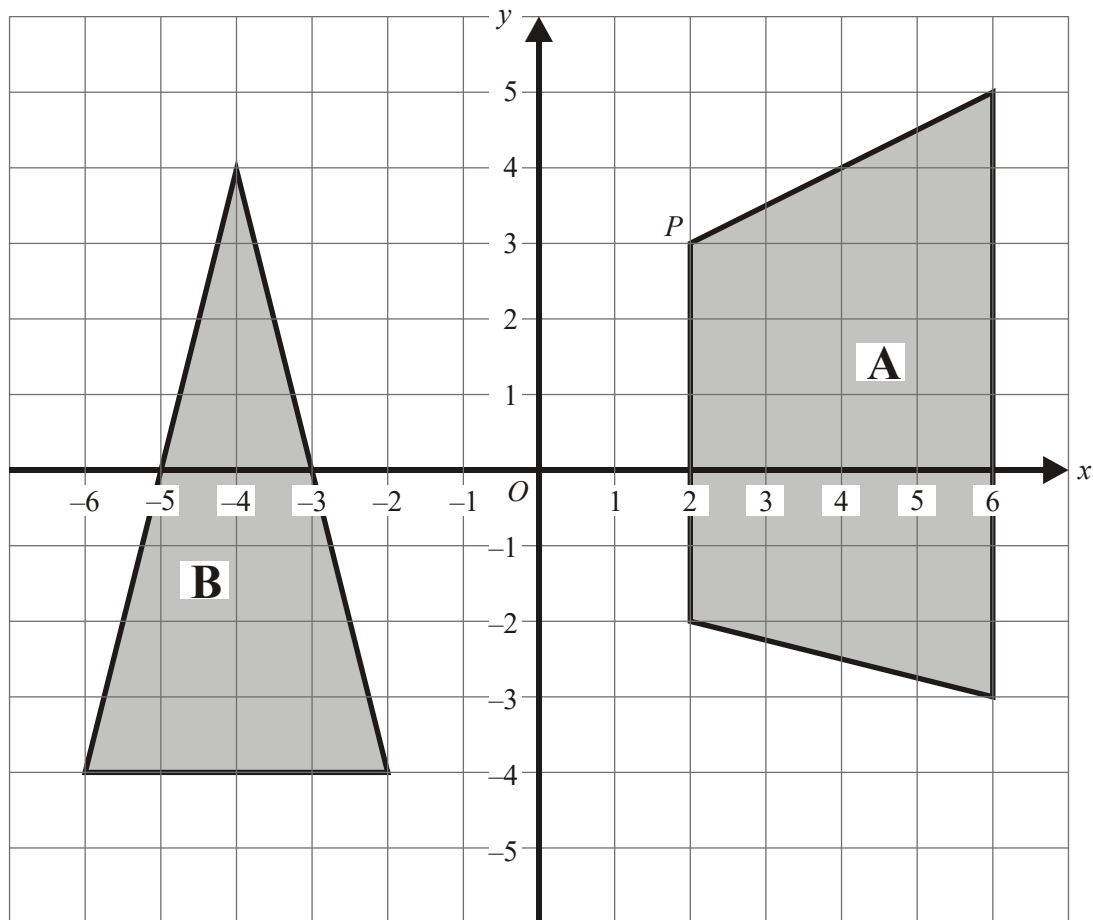


1.



The diagram shows two shapes.

(a) Write down the mathematical name for the shape **A**.

.....

(1)

(b) Write down the coordinates of the point *P*.

(.....,.....)

(1)

(c) Write down the mathematical name of the triangle **B**.

.....

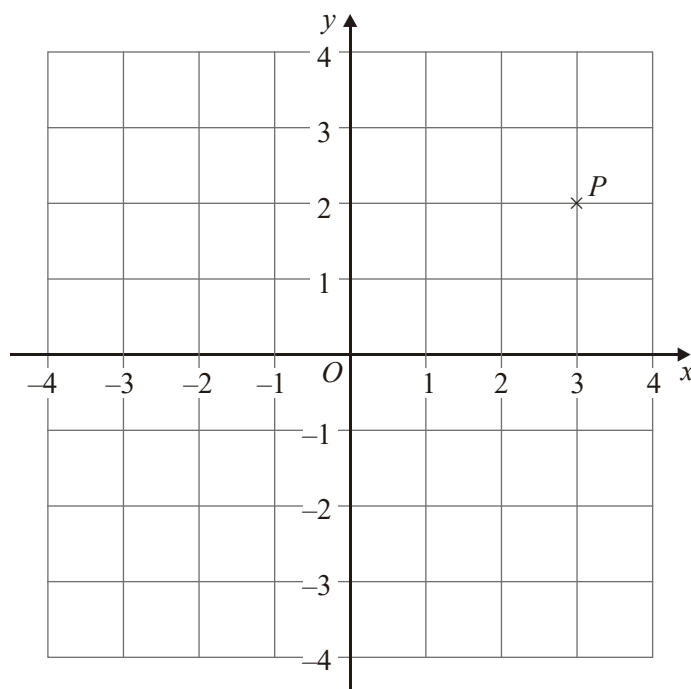
(1)

The coordinates of another point are  $(-2, -4)$ .

- (d) Mark this point on the grid.  
Label it  $Q$ .

(1)  
(Total 4 marks)

2.



- (a) Write down the coordinates of the point  $P$ .

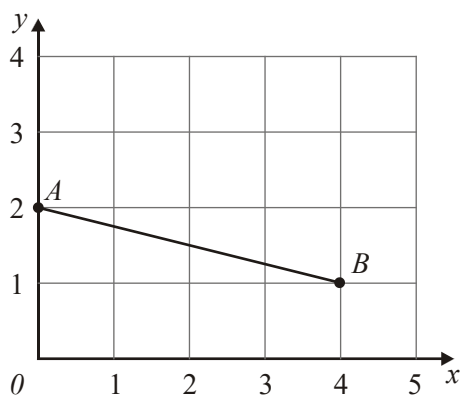
(....., .....

(1)

- (b) (i) On the grid, plot the point  $(0, 3)$ .  
Label the point  $Q$ .
- (ii) On the grid, plot the point  $(-2, -3)$ .  
Label the point  $R$ .

(2)  
(Total 3 marks)

3.



(a) Write down the coordinates of the point

(i)  $A$ ,

( ..... , ..... )

(ii)  $B$ .

( ..... , ..... )

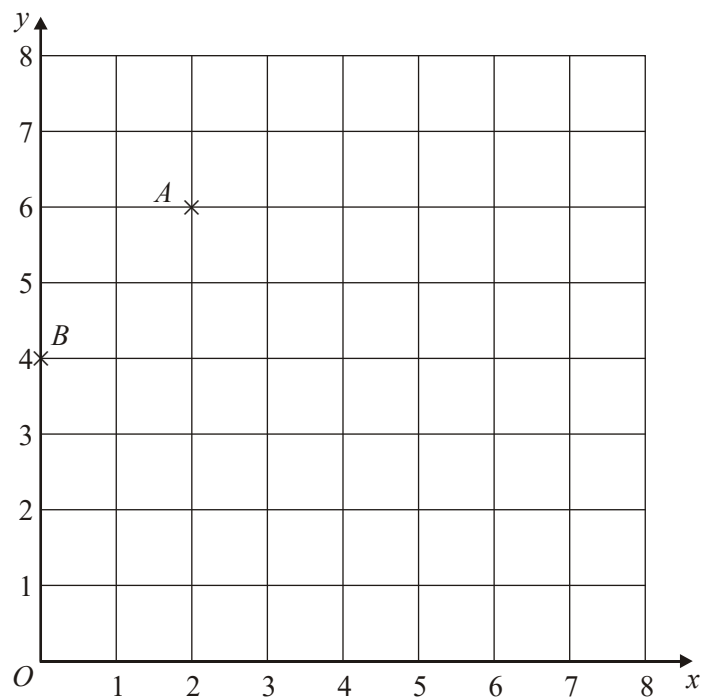
(2)

(b) On the grid, mark with a cross ( $\times$ ) the midpoint of the line  $AB$ .

(1)

(Total 3 marks)

4.



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

(.....,.....)

- (ii) Write down the coordinates of the point B.

(.....,.....)

(2)

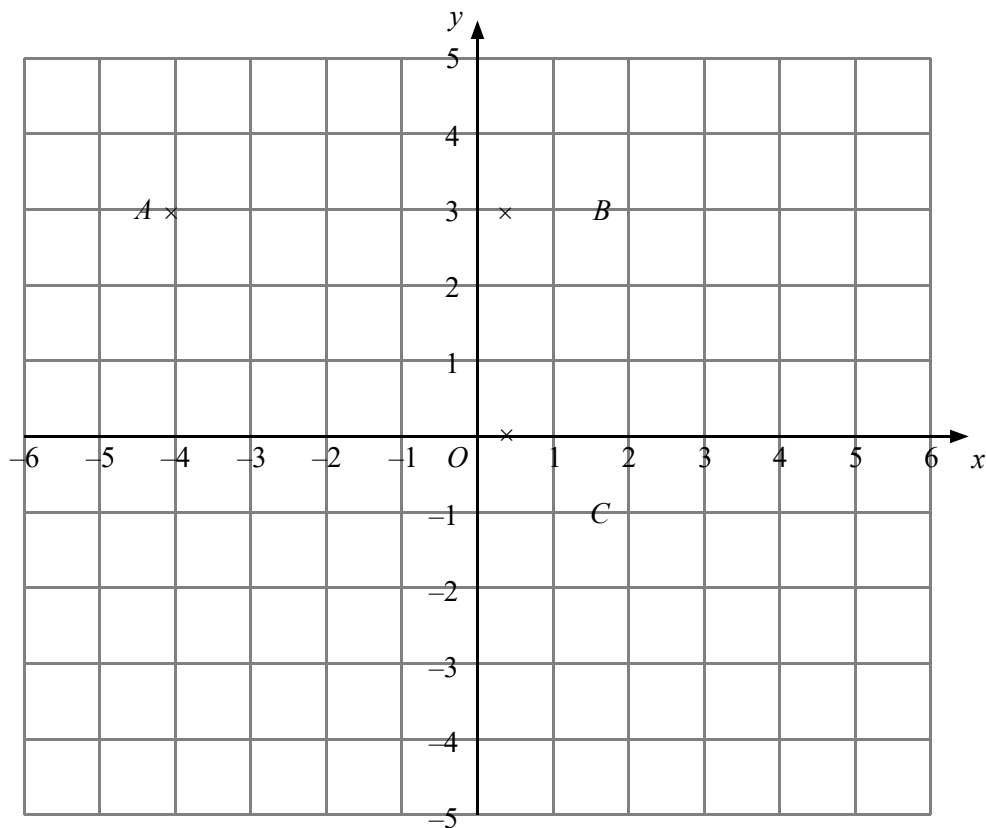
- (b) (i) On the grid, mark the point (6, 4) with the letter P.

- (ii) On the grid, mark the point (3, 0) with the letter Q.

(2)

(Total 4 marks)

5.



(a) Write down the coordinates of the point

(i) A,

(..... , .....)

(ii) C.

(..... , .....)

(2)

(b) (i) On the grid, mark the point D so that ABCD is a rectangle.

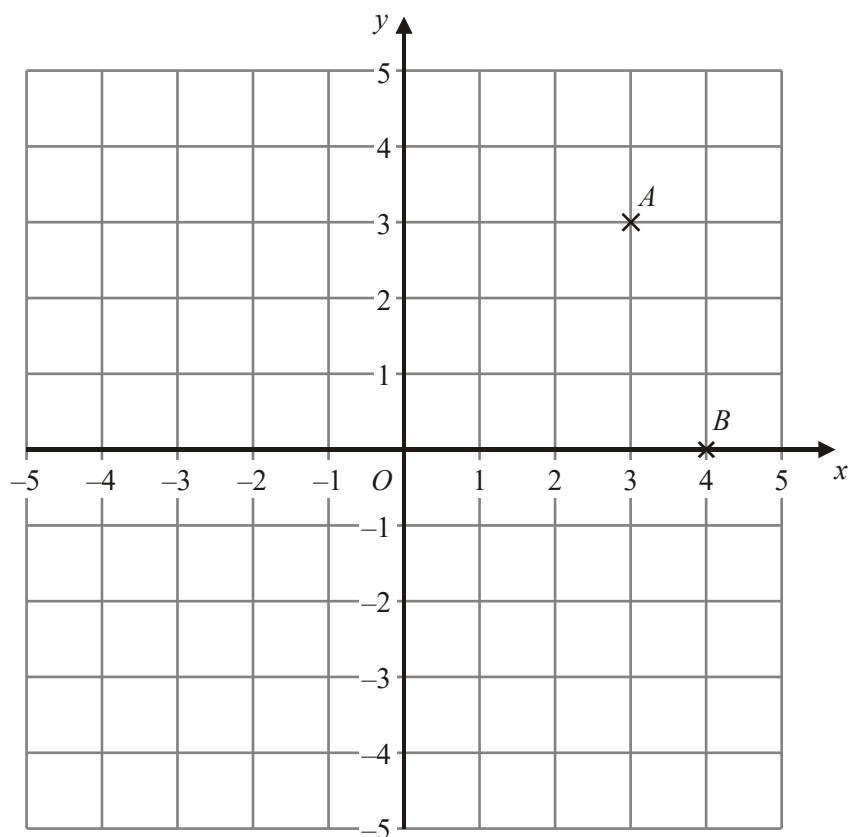
(ii) Write down the coordinates of D.

(..... , .....)

(2)

(Total 4 marks)

6.



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

(....., .....

(1)

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

(....., .....

(1)

$N$  is the point  $(-3, 2)$

(c) On the grid, mark the point  $N$  with a cross ( $\times$ ). Label it  $N$ .

(1)

$M$  is another point.

The  $x$  coordinate of  $M$  is the same as the  $x$  coordinate of  $N$ .

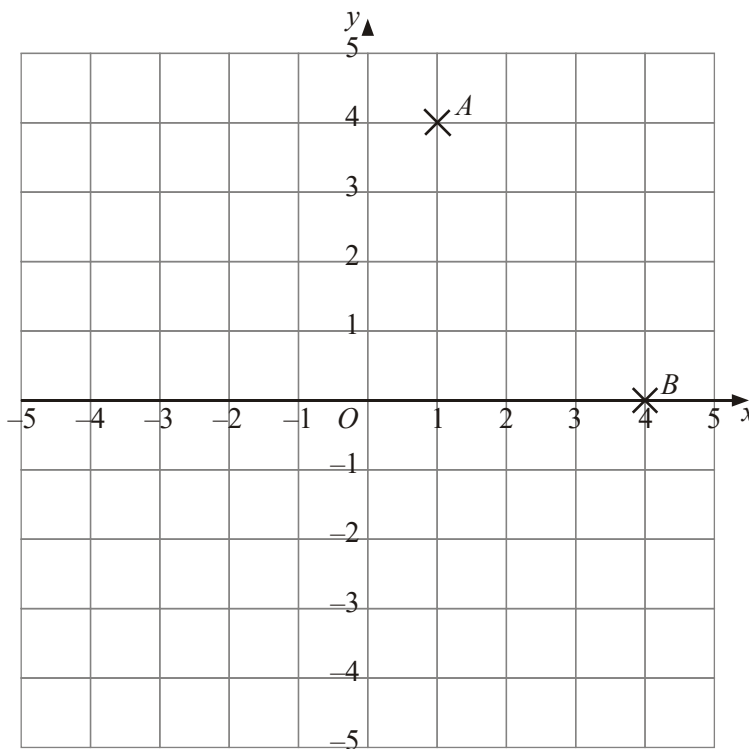
The  $y$  coordinate of  $M$  is the same as the  $y$  coordinate of  $B$ .

- (d) Write down the coordinates of the point  $M$ .

(....., .....) (1)

(Total 4 marks)

7.



- (a) (i) Write down the coordinates of the point  $A$ .

(....., .....) (1)

- (ii) Write down the coordinates of the point  $B$ .

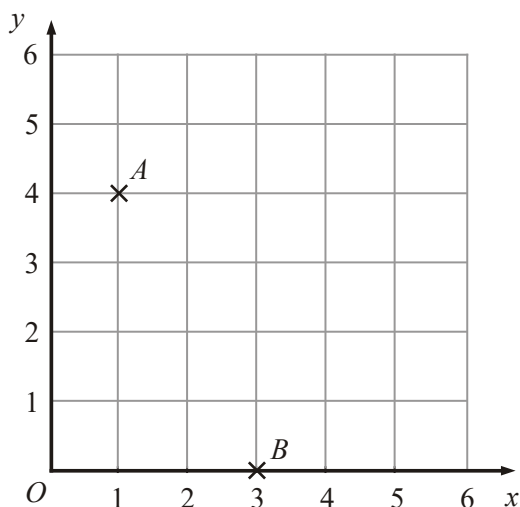
(....., .....) (2)

(2)

- (b) (i) On the grid, plot the point  $(3, 2)$ .  
Label this point  $P$ .
- (ii) On the grid, plot the point  $(-4, 3)$ .  
Label this point  $Q$ .

(2)  
(Total 4 marks)

8.



- (a) (i) Write down the coordinates of point  $A$ .

(....., .....)

- (ii) Write down the coordinates of point  $B$ .

(....., .....)

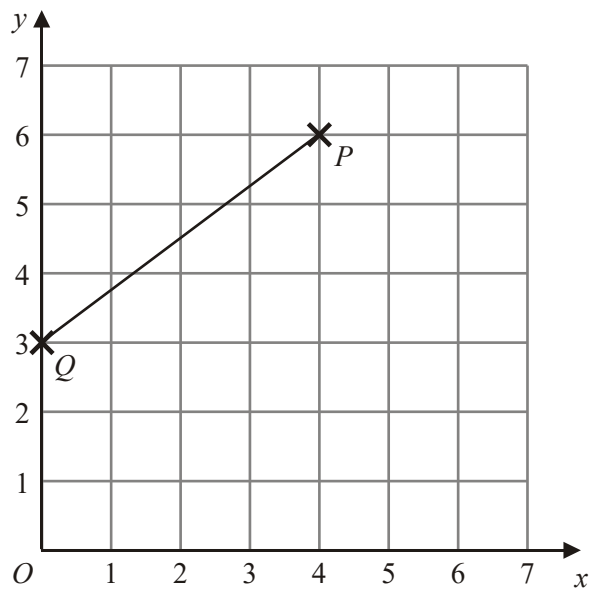
(2)

- (b) On the grid, mark with a cross ( $\times$ ) the point  $(5, 2)$ .  
Label this point  $C$ .

(1)  
(Total 3 marks)



9.



(a) Write down the coordinates of the point  $P$ .

(..... , .....)

(1)

(b) Write down the coordinates of the point  $Q$ .

(..... , .....)

(1)

$M$  is the midpoint of the line from  $Q$  to  $P$ .

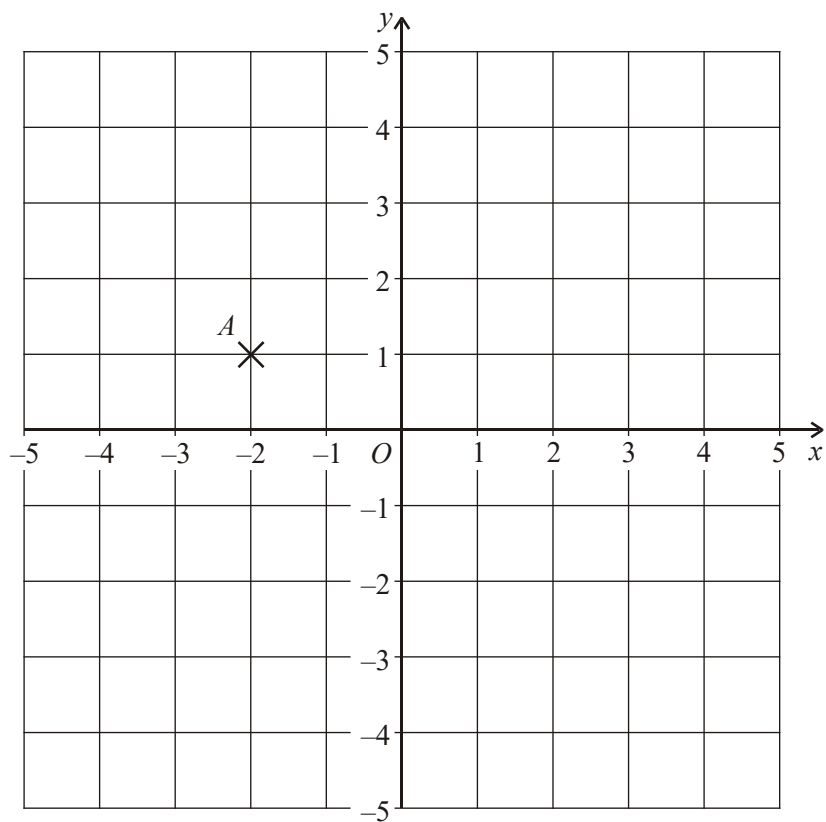
(c) Find the coordinates of  $M$ .

(..... , .....)

(2)

(Total 4 marks)

10.



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

(....., .....

(1)

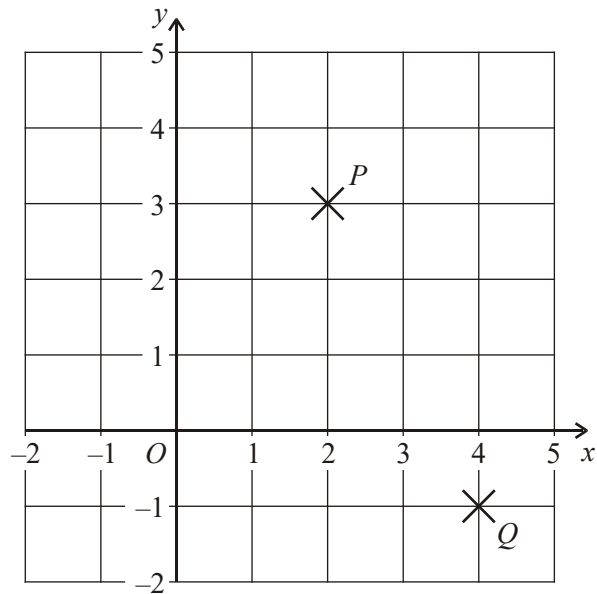
The point B has coordinates (3, -2).

(b) On the grid, plot and label the point *B*.

(1)

(Total 2 marks)

11.



- (i) Write down the coordinates of the point  $P$ .

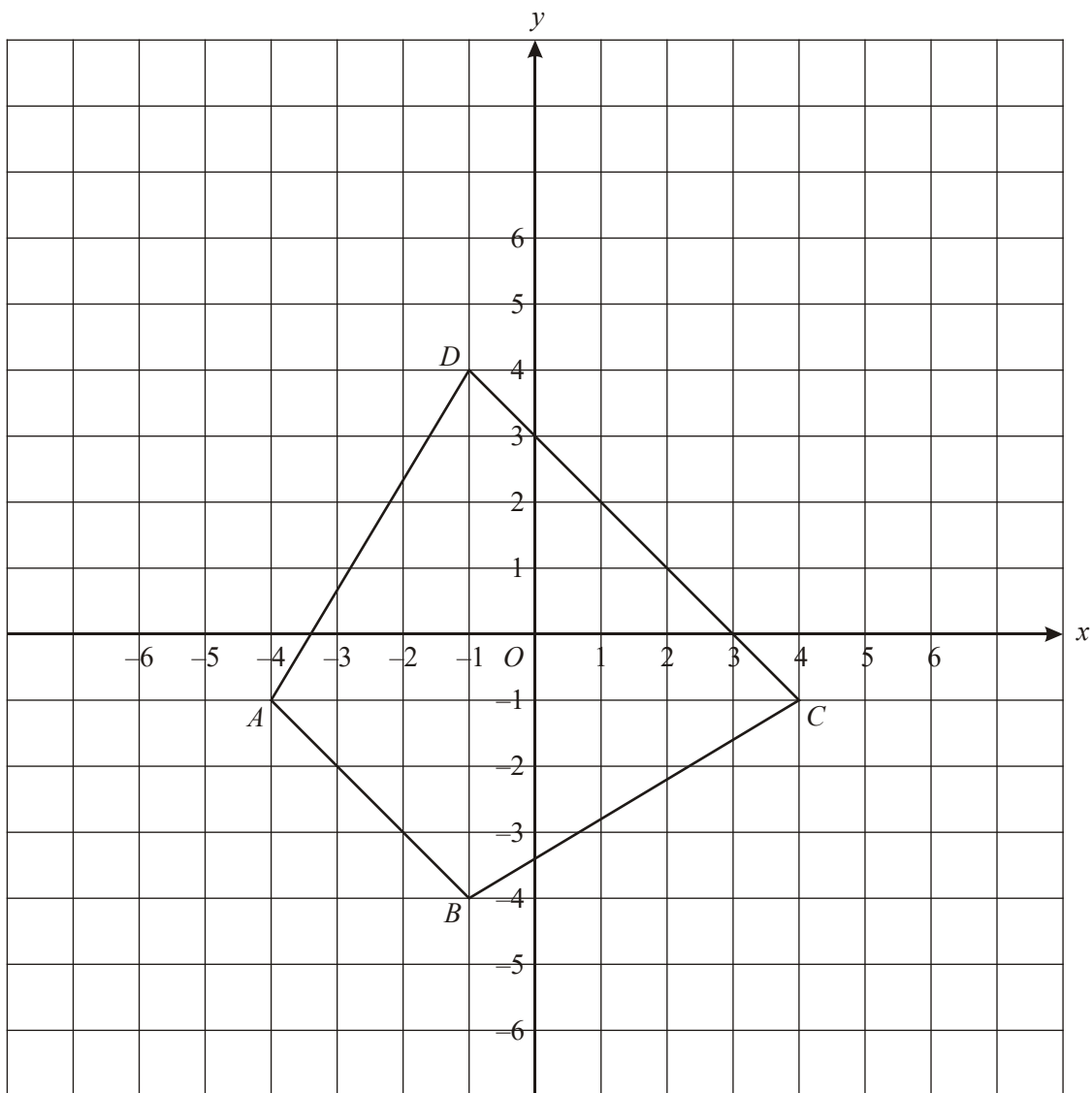
(....., .....)

- (ii) Write down the coordinates of the point  $Q$ .

(....., .....)

**(Total 2 marks)**

12.



(a) Write down the letter of the point with coordinates  $(-1, -4)$ .

.....

(1)

(b) On the grid plot the point  $(-5, 3)$ .  
Label the point  $P$ .

(1)

- (c) Measure the length of  $AB$ .  
Give your answer in cm.

..... cm

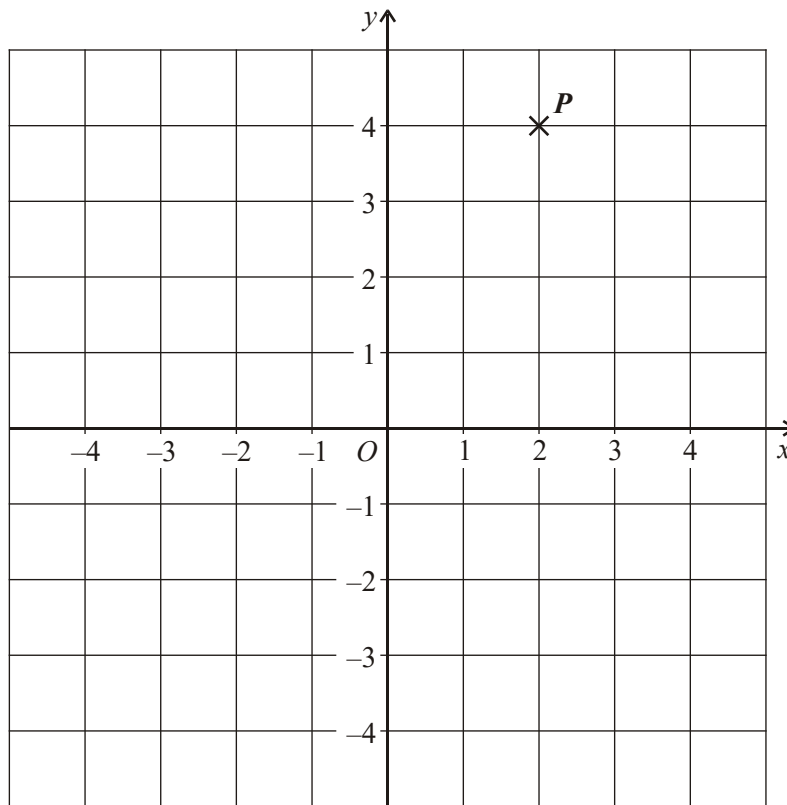
(1)

- (d) Mark an angle of the shape  $ABCD$  which is acute.

(1)

(Total 4 marks)

13.



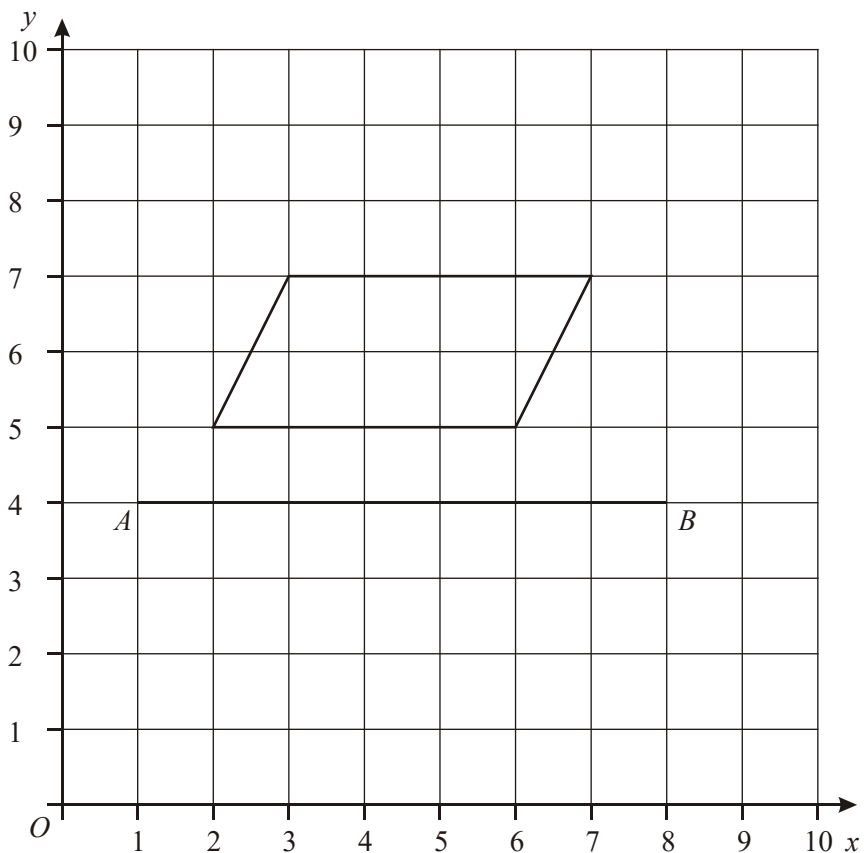
- (i) Write down the coordinates of point  $P$ .

(..... , .....)

- (ii) On the grid, plot the point  $(-3, -1)$ .  
Label this point with the letter  $Q$ .

(Total 2 marks)

14. A quadrilateral is shown on the grid.



(a) Write down the mathematical name of this quadrilateral.

.....

(1)

(b) Reflect the quadrilateral in the line  $AB$ .

(2)

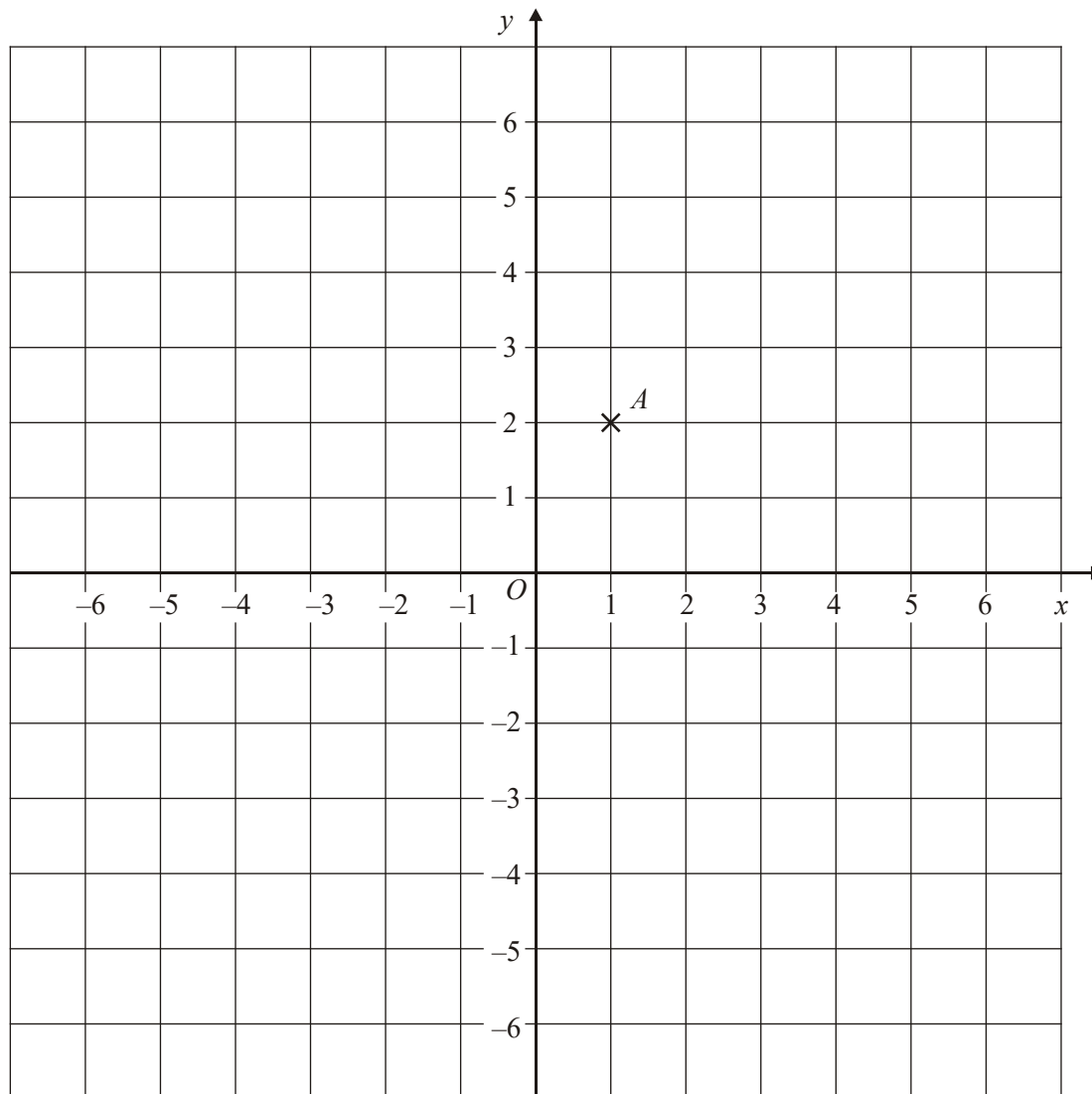
(c) Write down the coordinates of the point  $B$ .

(....., .....

(1)

(Total 4 marks)

15.



(a) Write down the coordinates of point A.

( ..... , ..... )

(1)

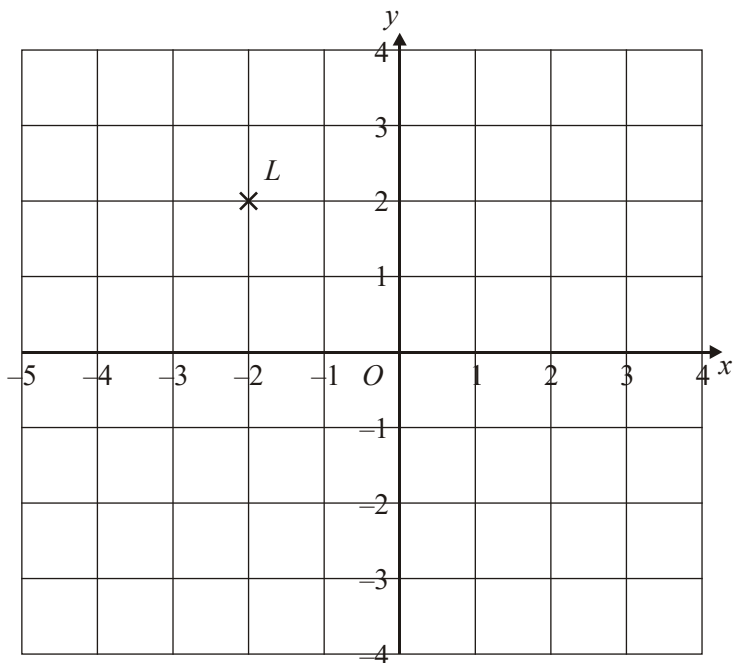
(b) On the grid, plot the point (5, 3).  
Label this point with the letter B.

(1)

- (c) On the grid, plot the point  $(4, -2)$ .  
Label this point with the letter  $C$ .

(1)  
(Total 3 marks)

16.



- (a) Write down the coordinates of the point  $L$

(....., .....

(1)

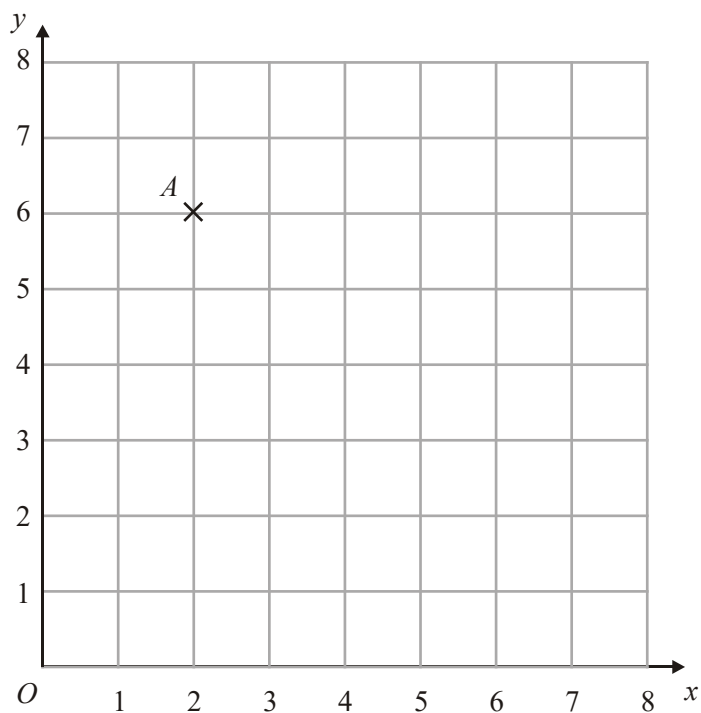
The coordinates of another point are  $(-4, -1)$ .

- (b) Mark this point on the grid.  
Label it  $M$

(1)  
(Total 2 marks)



17.



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

(....., .....)

(1)

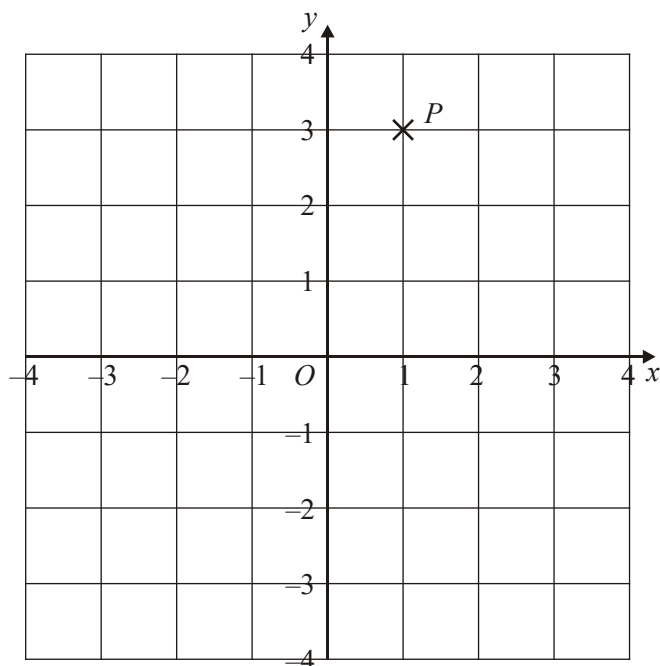
(b) On the grid, mark the point (6, 4) with the letter *P*.

.....

(1)

(Total 2 marks)

18.



- (a) Write down the coordinates of the point  $P$ .

(....., .....

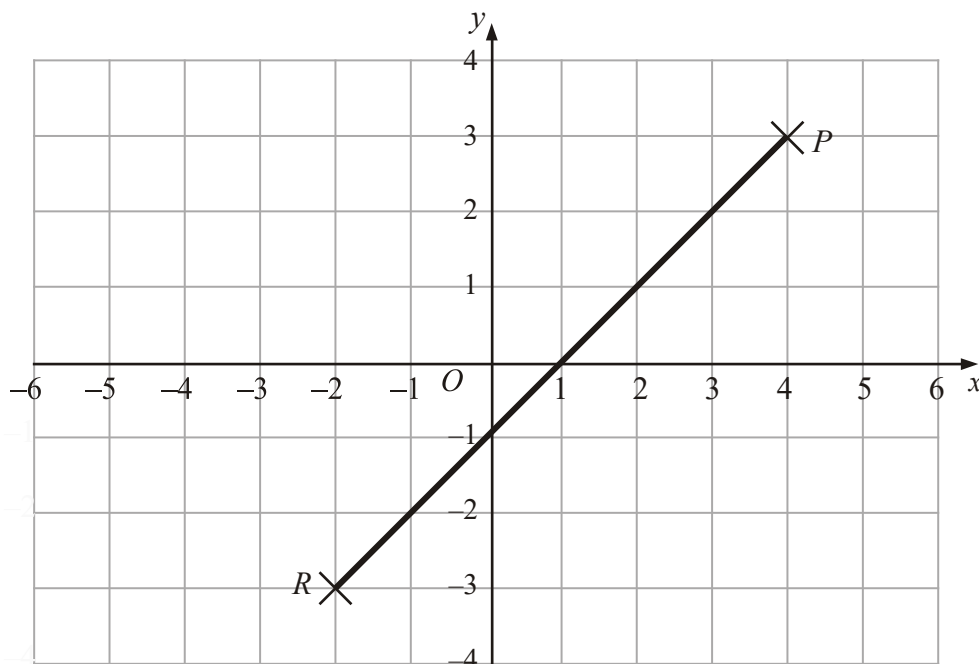
(1)

- (b) (i) On the grid, plot the point  $(0, 2)$ .  
Label the point  $Q$ .
- (ii) On the grid, plot the point  $(-3, -2)$ .  
Label the point  $R$ .

(2)

(Total 3 marks)

19.



- (a) Write down the coordinates of the point  $P$ .

(..... , .....)

(1)

- (b) On the grid, mark the point  $(-3, 1)$  with a cross ( $\times$ ).  
Label the point  $Q$ .

(1)

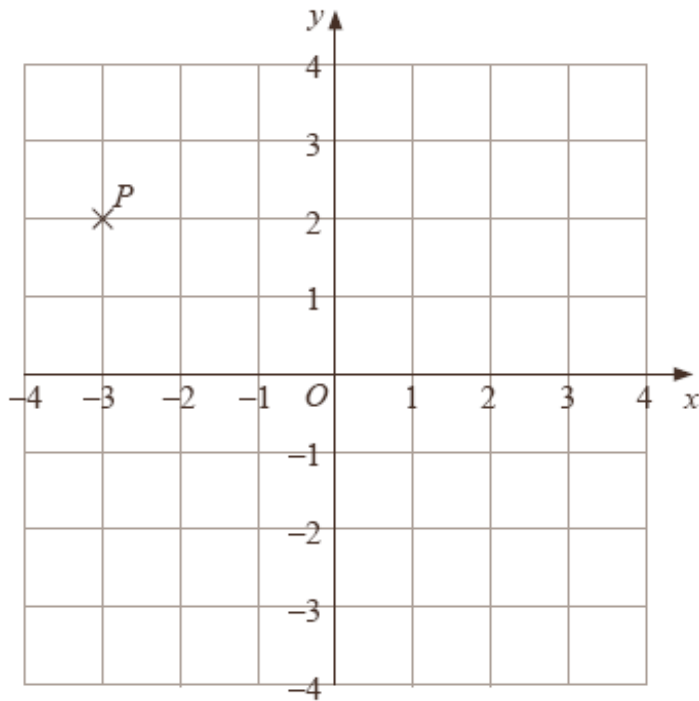
- (c) Write down the coordinates of the midpoint of the line  $PR$ .

(..... , .....)

(2)

(Total 4 marks)

20.



- (a) Write down the coordinates of the point  $P$ .

(..... , .....)

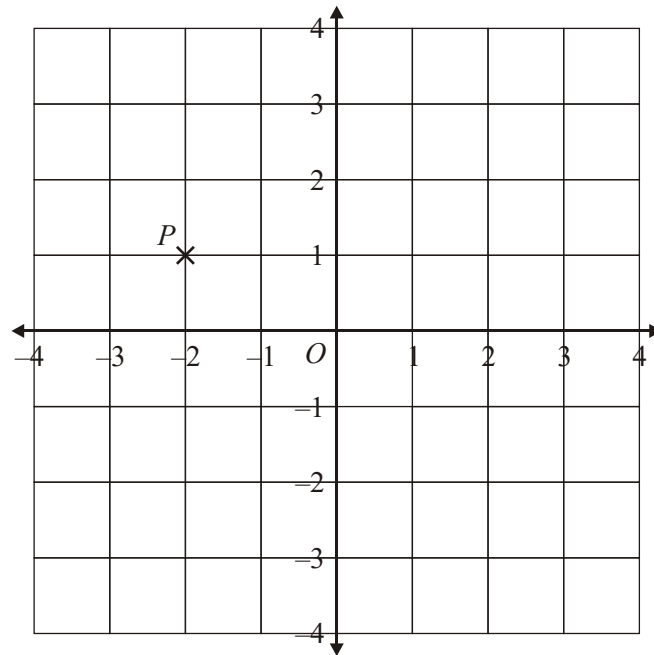
(1)

- (b) On the grid, plot the point  $(0, -2)$ .  
Label the point  $Q$ .

(1)

(Total 2 marks)

21.



What are the coordinates of P?

$(-2, 1)$   
      
**A**

$(1, -2)$   
      
**B**

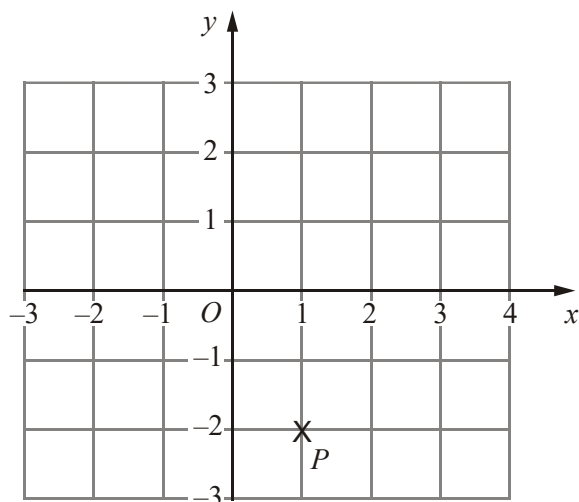
$(-1, -2)$   
      
**C**

$(-1, 2)$   
      
**D**

$(2, -1)$   
      
**E**

**(Total 1 mark)**

22.

What are the coordinates of the point  $P$ ?

(1, -2)

(-2, 1)

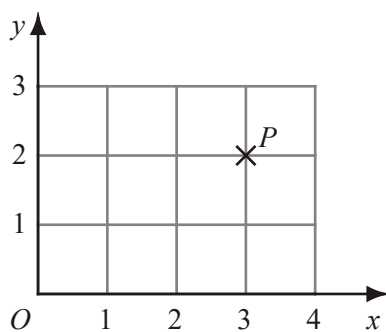
(2, 1)

(-1, -2)

(1, 2)

**A****B****C****D****E****(Total 1 mark)**

23.

What are the coordinates of the point  $P$ ?

(3, 0)

(2, 0)

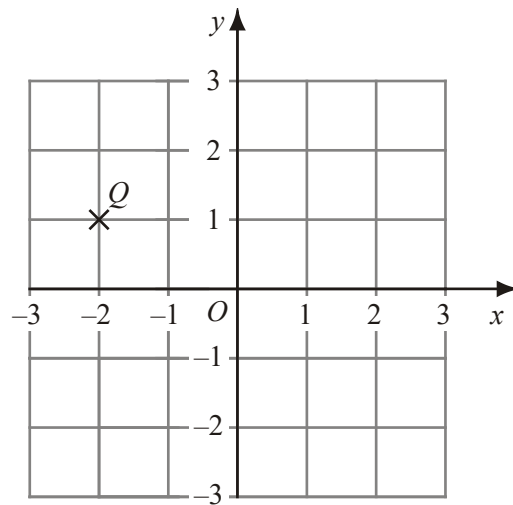
(0, 2)

(3, 2)

(2, 3)

**A****B****C****D****E****(Total 1 mark)**

24.



What are the coordinates of the point  $Q$ ?

(1, -2)

(-2, 1)

(-2, -1)

(2, 1)

(-2, 0)

**A**

**B**

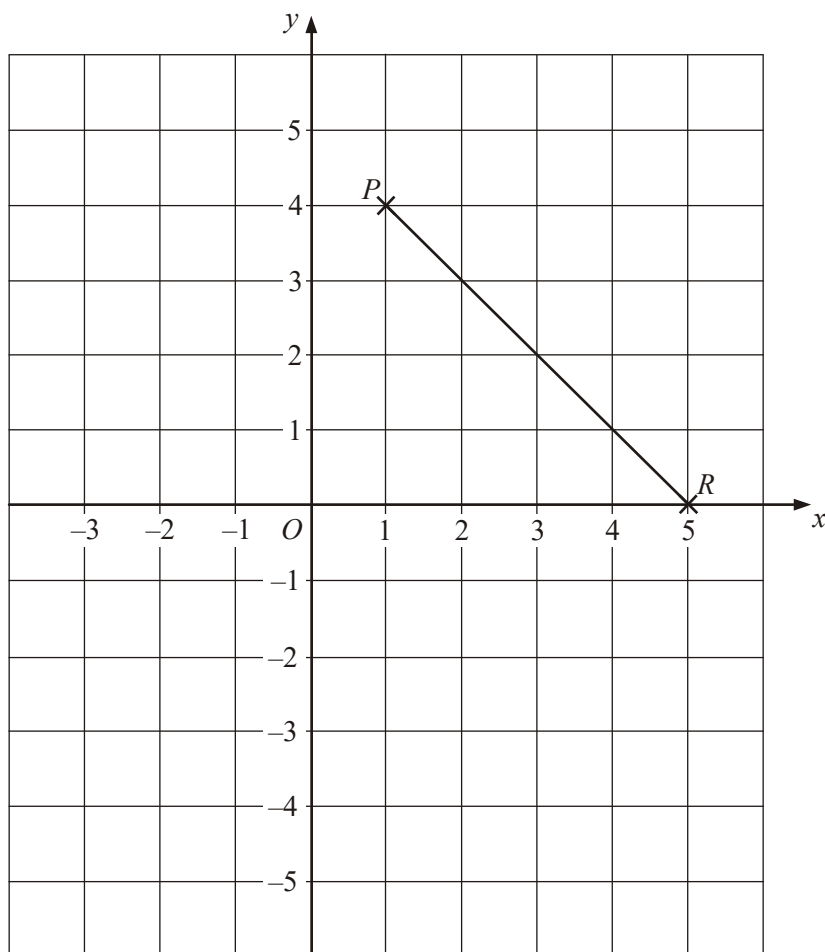
**C**

**D**

**E**

**(Total 1 mark)**

25.



- (a) Write down the coordinates of the point  $P$ .

(..... , .....)

(1)

- (b) On the grid, mark the point  $(5, -2)$  with a cross ( $\times$ ).  
Label the point  $Q$ .

(1)

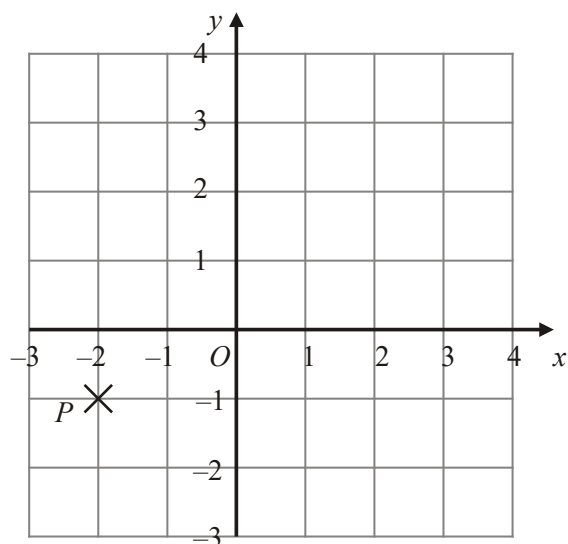


- (c) (i) On the grid, mark with a cross (X) the midpoint of the line  $PR$ .  
 (ii) Write down the coordinates of the midpoint of the line  $PR$ .

(..... , .....)

(2)  
 (Total 4 marks)

26.

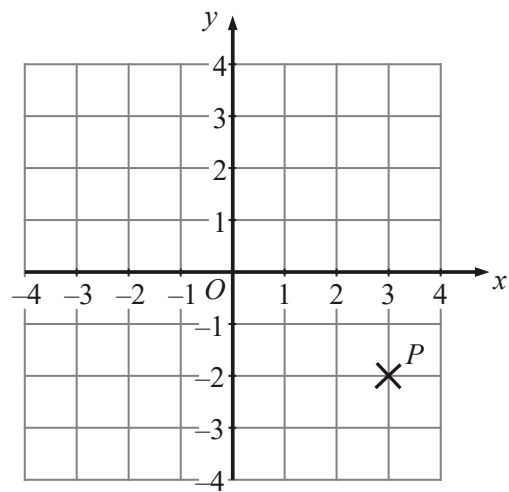


What are the coordinates of the point  $P$ ?

- (-2, 1)                      (2, -1)                      (-1, -2)                      (-2, -1)                      (2, 1)  
 A                                      B                                      C                                      D                                      E

(Total 1 mark)

27.



What are the coordinates of the point  $P$ ?

(-2, 3)

(2, -3)

(3, -2)

(-3, -2)

(-3, 2)

**A**

**B**

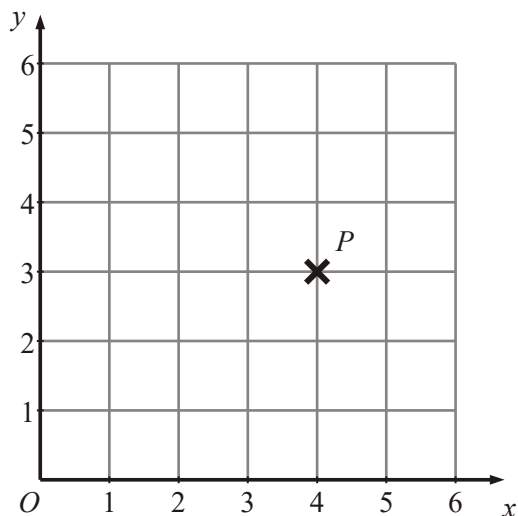
**C**

**D**

**E**

**(Total 1 mark)**

28.



The coordinates of the point  $P$  are

(3, 4)

(4, 4)

(4, 3)

(5, 4)

(4, 5)

**A**

**B**

**C**

**D**

**E**

(Total 1 mark)

1. (a) Trapezium

*Bl cao ignore spelling*

1

(b) (2, 3)

*Bl cao*

1

(c) Isosceles

*Bl cao ignore spelling*

1

(d)  $Q$  correct

*Bl cao*




1

[4]

2. (a) (3, 2) 1  
*BI for (3, 2)*
- (b) (i) Q at (0, 3) 1  
*BI for Q plotted correctly on y-axis at (0, 3) ± 2mm*
- (ii) R at (-2, -3) 1  
*BI for R plotted correctly at (-2, -3) ± 2mm*
- [3]**
- 
3. (a) (i) (0, 2) 2  
*BI cao*
- (ii) (4, 1)   
*BI cao*
- (b)  $(2, 1\frac{1}{2})$  marked 1  
*BI Allow 2mm tolerance from  $(2, 1\frac{1}{2})$*
- [3]**
- 
4. (a) (i) (2, 6) 2  
*BI cao*
- (ii) (0, 4)   
*BI cao*
- (b) (i) P correct 2  
*BI cao*
- (ii) Q correct   
*BI cao*
- [4]**
- 
5. (a) (i) (-4, 3)   
*BI cao*
- (ii) (2, -1) 2  
*BI cao*

- (b) (i)  $D$  marked at  $(-4, -1)$   
 Point marked on grid  
*Bl for point marked at  $(-4, -1)$  cao*
- (ii)  $(-4, -1)$  2  
*Bl ft*
- [4]**
6. (a)  $(3, 3)$  1  
*Bl cao*
- (b)  $(4, 0)$  1  
*Bl cao*
- (c)  $N$  plotted correctly 1  
*Bl cao*
- (d)  $(-3, 0)$  1  
*Bl cao*
- [4]**
7. (a) (i)  $(1, 4)$  2  
*Bl for  $(1, 4)$  cao*
- (ii)  $(4, 0)$   
*Bl for  $(4, 0)$  cao*
- (b) (i)  $P$  marked at  $(3, 2)$  2  
*Bl for  $P$  marked at  $(3, 2)$*
- (ii)  $Q$  marked at  $(-4, 3)$   
*Bl for  $Q$  marked at  $(-4, 3)$*
- [4]**
8. (a) (i)  $1, 4$   
*Bl cao*
- (ii)  $3, 0$  2  
*Bl cao*
- (b)  $C$  correct 1  
*Bl cao*
- [3]**

9. (a) (4, 6) *BI cao* 1
- (b) (0, 3) *BI cao* 1
- (c)  $\left(\frac{0+4}{2}, \frac{3+6}{2}\right)$   
(2, 4.5) 2  
*B2 for (2, 4.5)  $\pm 0.2$  on each coordinate*  
*[BI for (2, b)  $b \neq 4.5$  or (a, 4.5)  $a \neq 2$  or (4.5, 2) or*  
 *$\left(\frac{0+4}{2}, \frac{3+6}{2}\right)$  seen  $\pm 0.2$  on each coordinate]*
- [4]**
10. (a) (-2, 1) *BI* 1
- (b) Plot (3, -2) *BI* 1
- [2]**
11. (i) P (2, 3) *BI* 2
- (ii) Q (4, -1) *BI*
- [2]**
12. (a) *B* *BI* 1
- (b) plot (-5, 3) *BI* 1
- (c)  $4 < \text{ans} \leq 4.4$  *BI* 1
- (d) mark *C* or *D* *BI* 1
- [4]**

13.	(i)	(2, 4)	<i>BI</i>	2	
	(ii)	Q plotted	<i>BI</i>		
					<b>[2]</b>
14.	(a)	parallelogram	<i>BI</i>	1	
	(b)	  		2	
			<i>B2 for correct reflection [coordinates (2, 3), (6, 3), (3, 1), (7, 1)] (B1 for 3 points correct or correct orientation, incorrect position)</i>		
	(c)	(8, 4)	<i>BI</i>	1	
					<b>[4]</b>
15.	(a)	(1, 2)	<i>BI</i>	1	
	(b)	(5, 3) plotted	<i>BI</i>	1	
	(c)	(4, -2) plotted	<i>BI</i>	1	
					<b>[3]</b>
16.	(a)	(-2, 2)	<i>BI</i>	1	

- |            |     |  |   |            |
|------------|-----|--|---|------------|
|            | (b) | plot $(-4, -1)$<br><i>BI</i>   | 1 |            |
|            |     |  |   | <b>[2]</b> |
| <b>17.</b> | (a) | $(2, 6)$<br><i>BI cao</i>  | 1 |            |
|            | (b) | P correct<br><i>BI cao</i>   | 1 |            |
|            |     |  |   | <b>[2]</b> |
| <b>18.</b> | (a) | $(1, 3)$<br><i>BI cao</i>  | 1 |            |
|            | (b) | (i) $(0, 2)$ plotted<br><i>BI cao</i>  | 2 |            |
|            |     | (ii) $(-3, -2)$ plotted<br><i>BI cao</i>   |   |            |
|            |     |  |   | <b>[3]</b> |
| <b>19.</b> | (a) | $(4, 3)$<br><i>BI cao</i>  | 1 |            |
|            | (b) | <i>BI for Q plotted at <math>(-3, 1)</math> allow <math>\pm 2\text{mm}</math> on grid</i>                                    | 1 |            |
|            | (c) | $(1, 0)$<br><i>B2 for <math>(1, 0)</math><br/>(BI for <math>(1, y)</math> or <math>(x, 0)</math> or <math>(0, 1)</math>)</i> | 2 |            |
|            |     |  |   | <b>[4]</b> |
| <b>20.</b> | (a) | $(-3, 2)$<br><i>BI cao</i>   | 1 |            |
|            | (b) | point at $(0, -2)$<br><i>BI cao</i>  | 1 |            |
|            |     |  |   | <b>[2]</b> |



21. A [1]
22. A [1]
23. D [1]
24. B [1]
25. (a) (1, 4) 1  
*BI cao*
- (b) (5, -2) plotted 1  
*BI cao (condone omission of label Q)*
- (c) (i) midpoint at (3, 2) marked 2  
*BI for identification of midpoint (within  $\pm 2$  mm)*
- (ii) (3, 2)  
*BI cao* [4]
26. D [1]
27. C [1]
28. C [1]

1. Parts (a) and (c) of this question were successfully answered by about 50% of candidates. There were a sizeable number who were apparently confused by the placement of the shapes on the diagram, despite the fact that the diagrams were clearly labelled, and gave 'isosceles' for their answer to part (a) and 'trapezium' for part (c). Correct answers were usually given to parts (b) and (d). Sometimes (2, 3) was given as (3, 2) and more commonly  $(-4, -2)$  was plotted instead of the  $(-2, -4)$  given.
2. This question was well understood by all candidates. 82% of candidates were able to give the co-ordinates of a point in the first quadrant but only 70% were able to plot a point on the  $y$  axis and 75% were able to mark a point in the third quadrant.
3. All but the weakest candidates scored at least 2 marks out of 3. In the first part, the coordinates were occasionally transposed and, if the mark were not gained in the second part, it was often because there was no cross, rather than a wrongly positioned one.
4. Where candidates were able to correctly write down the coordinates in part (a), they were then able to go on and correctly mark the given points on the grid for (b). This happened in over 70% of the responses. The success rate in part (a) was only slightly higher than that in part (b). The most common incorrect responses involved mixing up the  $x$ -coordinates with the  $y$ -coordinates.
5. This too was a well understood question. Foundation Tier candidates score well on reading and plotting coordinates. A small minority of candidates reversed the  $x$  and  $y$  coordinates and unfortunately scored no marks. A few  $(-4x, 3y)$  were seen again this year which also scored no marks. Plotting the 4<sup>th</sup> point to make a rectangle was almost always correct.
6. This question discriminated well between candidates. Nearly all could use the correct notation to identify the co-ordinates of A correctly. Most, but by no means all, were also able to give a correct answer in part (b). (0,4) was a very commonly seen incorrect response. A large majority of candidates plotted the point  $(-3, 2)$  correctly. However, in part (d) most candidates were not able to identify both co-ordinates correctly – many could give the correct  $x$  value but not the correct  $y$  value.
7. This question was answered well with most candidates gaining at least two of the four marks and many achieving full marks. Errors were seen most often in (a)(ii) where (0, 4) was the most common incorrect answer and in (b)(ii) where the most common error was to plot (3, -4) rather than  $(-4, 3)$ .

8. A significant proportion of weaker candidates transposed the  $x$  and  $y$  co-ordinates in their answers to part (a) of this question. This error accounted for nearly all the incorrect responses. A similar error occurred in part (b) where candidates were required to plot a point. Instead of the point (5, 2) they plotted the point (2, 5). Some points were not labelled. The mark was awarded if the candidate's answer was unambiguous. Fully correct answers were seen for parts (a) and (b) in 80% and 91% of responses respectively.
9. Most candidates were able to correctly write down the coordinates of points  $P$  and  $Q$ , although a significant number reversed the coordinates to give (6, 4) and (3, 0) respectively. A significant number gave (1, 3) instead of (0, 3).  
In part (c), the  $x$ -coordinate (2) was usually correct, but a  $y$ -coordinate of 4 or 5 was common. Some candidates reversed the coordinates to give (4.5, 2). This gained 1 mark only.
10. This was a popular question with most scoring at least one of the two marks. A few candidates put  $x$  and  $y$  with their numbers. Many scored the 2 marks available.
11. There were many successful responses to this question, particularly to part (i). Many failed to give the  $y$  co-ordinate of  $Q$  correctly, giving it as 1 instead of  $-1$ . A significant minority transposed both co-ordinates.
12. Only a few candidates scored 0 or 4 on this question. Most candidates were able to correctly answer some of the parts with no obvious pattern as to where these marks were scored. A few candidates measured in mm in (c) not noticing the cm by the answer space.
13. Most candidates were able to correctly write down the coordinates of point  $P$  but many of these were then unable to plot  $Q$  correctly. It is encouraging to note that over two thirds of the candidates were able to score both marks.

14. Only 30% of candidates were able to correctly identify the parallelogram in (a). The notion of 'keep it simple' needed to be applied rather than the inventiveness of some of the responses. Names like 'fryperium', 'tolaruus' and 'quadril' are written more in hope than in expectation! In part (b) over half the candidates were able to score one mark by either providing 3 correct vertices or reflecting the parallelogram in another horizontal line, generally the line  $y = 5$  with just under half the candidates scoring both marks. The most common incorrect response was to translate the shape downwards. In part (c) two thirds of the candidates provided the correct answer of (8, 4) with most of the incorrect answers being (4, 8).
15. Around three quarters of the candidates were able to score a mark on each section, with candidates finding it slightly easier to write down the coordinates rather than plotting the required points.
16. Writing down the coordinates of the point 'L' produced many accurate readings but with some indecision about whether the sign with the coordinates should take a 'plus' or a 'minus' sign. The plotting of the point in part (b) again gave rise to correct locations but, where an error arose in part (a), this was often carried through to this second part. Thus it was not unusual to see the point '(-4, -1)' shown at '(-1, -4)' where the answer to (a) had been '(2, -2)'. However, around  $\frac{3}{4}$  of the candidates were able to score both marks.
17. Although, not surprisingly, some candidates transposed the  $x$  and  $y$  co-ordinates this question was answered well with over 80% completing each part of the question successfully. In part (b) nearly all candidates labelled the point P, but in cases where there was no label the mark was given if the intention was clear.
18. Candidates understood the concept of reading and writing coordinates and were successful in about 80% of cases. There was a small amount of confusion in dealing with (0, 2) where candidates plotted (2, 0) in error and in dealing with (-3, -2) where candidates plotted (-2, -3) in error.
19. It was pleasing to note that around 82% of the candidates could write down the coordinates of the point  $P$  and 71% could mark the point (-3, 1) on the grid. Over half the candidates then went on to provide (1, 0) as the coordinates of the midpoint of the line although (0, 1) was a very popular incorrect response. Other popular incorrect answers were (1, -1) and (-1, 1). Some showed that they did not understand the concept of a midpoint, writing down the coordinates of  $R$ .

20. Part (a) was answered well but a significant number of candidates made mistakes in part (b), labelling the point  $(0, -2)$ , often placing it at  $(-2, 0)$  or  $(0, 2)$ .
21. No Report available for this question.
22. No Report available for this question.
23. No Report available for this question.
24. No Report available for this question.
25. The whole of this question was, in general, answered well. Very few failed to gain the award in part (a) although some did reverse the coordinates to give an incorrect answer of  $(4, 1)$ . In part (b) these candidates usually plotted their point Q incorrectly at  $(-2, 5)$ . Many candidates in part (c) correctly quoted the coordinates of the midpoint but then failed to indicate its position on the diagram.

26. No Report available for this question.

27. No Report available for this question.

28. No Report available for this question.