Coordinate geometry – 2022 IGCSE 0580

1. June/2022/Paper-11/No.2



Draw a line that is perpendicular to line L. [1]

2. June/2022/Paper-11/No.3

(a)

The diagram shows a circle.

On the diagram, draw a chord.

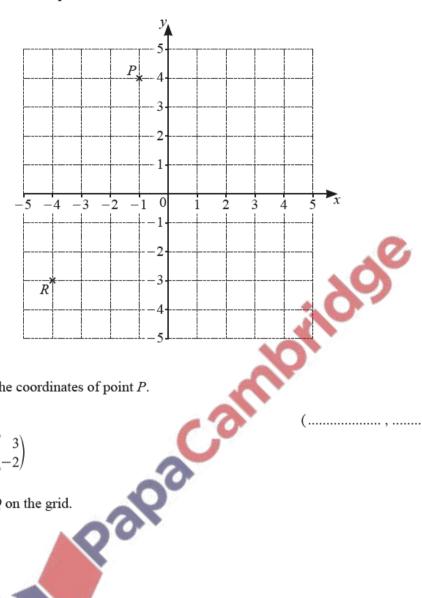
(b) Another circle has a diameter of 28 cm.

Find the radius of this circle.

..... cm [1]

3. June/2022/Paper-13/No.11

The grid shows point P and point R.



(a) Write down the coordinates of point P.

(b)
$$\overrightarrow{PQ} = \begin{pmatrix} 3 \\ -2 \end{pmatrix}$$

Mark point Q on the grid.

[1]

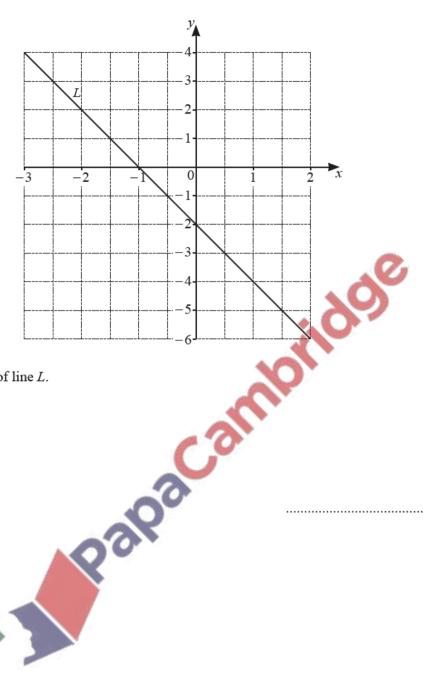
(c) Find
$$\overrightarrow{QR}$$
.



$$\overrightarrow{QR} = \left(\qquad \right) [1]$$

$$\overrightarrow{PQ} + \overrightarrow{QR} =$$
 [1]

4. June/2022/Paper-13/No.20

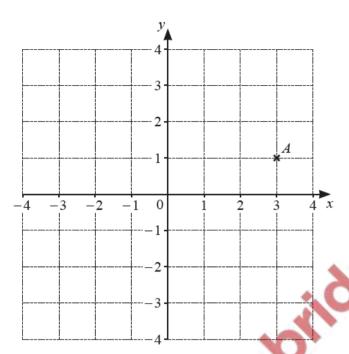


Find the gradient of line L.



5. June/2022/Paper_31/No.5

(a) The grid shows a point A.



(i) Write down the coordinates of point A.

.....) [1]

(ii) On the grid, plot the point B at (-1, 3).

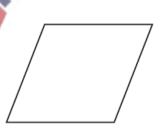
[1]

[1]

(iii) C is a point on the grid whose coordinates are whole numbers.

On the grid, mark a point C so that triangle ABC is isosceles.

(b)



The diagram shows a rhombus.

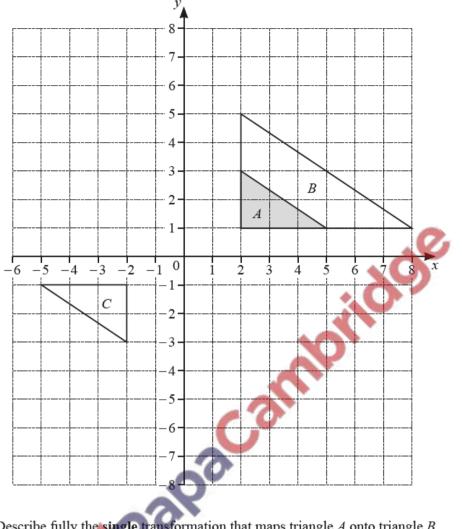
(i) Write down the order of rotational symmetry.

.....[1]

(ii) On the diagram, draw all the lines of symmetry.

[2]

(c) The grid shows triangles A, B and C.



(i) Describe fully the single transformation that maps triangle A onto triangle B.

(ii) Describe fully the single transformation that maps triangle A onto triangle C.

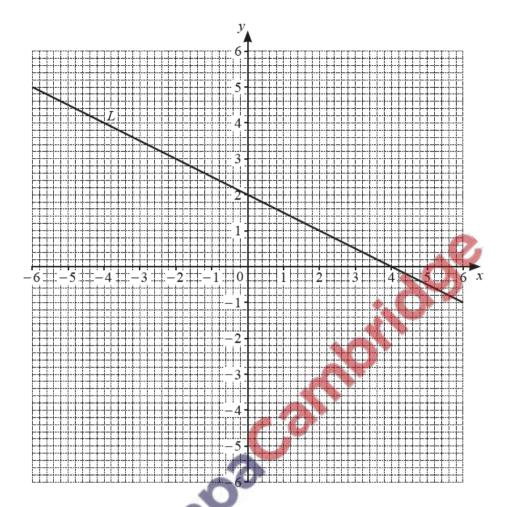
(iii) Draw the image of

(a) triangle A after a translation by the vector
$$\begin{pmatrix} -5\\ 3 \end{pmatrix}$$
, [2]

(b) triangle A after a reflection in the line y = -2. [2]

6. June/2022/Paper_31/No.8

The grid shows a line L.



(a) Find the equation of line L. Give your answer in the form y = mx + c.

$$y = \dots$$
 [2]

(b) (i) Complete the table of values for y = 2x + 5.

х	-5	-3	0
у	-5		5

[1]

(ii) On the grid, draw the graph of y = 2x + 5.

[1]

(c)	Write down the coordina	tes of the point which	lies on both line L	and the graph of $y = 2x + 5$.
\- <i>/</i>		r		

(.....) [1]

(d) Write down the equation of the line that is parallel to y = 2x + 5 and passes through the point (0, 18).

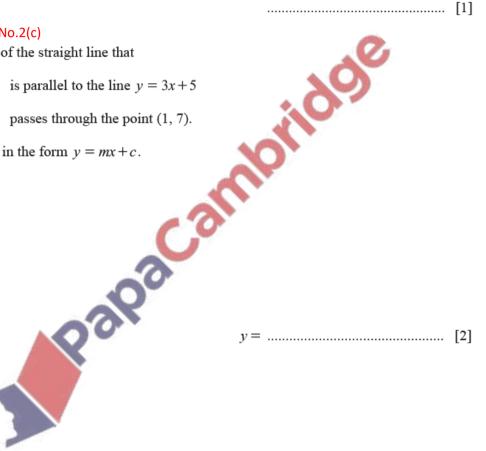
......[1]

7. June/2022/Paper_32/No.2(c)

- (c) Find the equation of the straight line that

and

Give your answer in the form y = mx + c.



8.	June/	/2022/Paper_42/No.3		
	A line, l , joins point $F(3, 2)$ and point $G(-5, 4)$.			
	(a)	Calculate the length of line <i>l</i> .		
	(b)	Find the equation of the perpendicular bisector of line l in the form $y = mx + c$.		
		$y = \dots$ [5]		
	(c)	$y = \dots$ [5] A point H lies on the y -axis such that the distance $GH = 13$ units.		
		Find the coordinates of the two possible positions of H .		

 $(\ldots \ldots, \ldots \ldots)$ and $(\ldots \ldots, \ldots \ldots)$ [4]