Coordinate geometry – 2022 Nov IGCSE 0580 Math

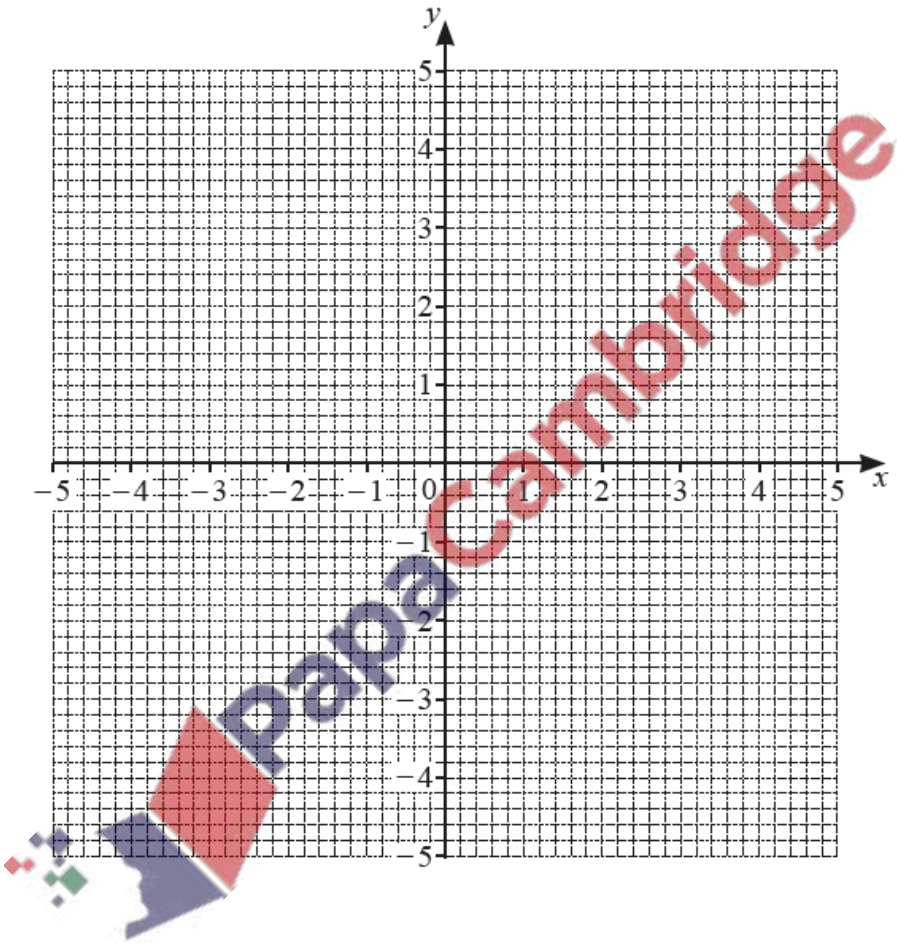
1. Nov/2022/Paper_0580_11/No.16

(a) Complete the table of values for $y = \frac{5}{x}$.

x	–5	–4	–2.5	–2	–1		1	2	2.5	4	5
y	–1		–2	–2.5	–5		5	2.5	2		1

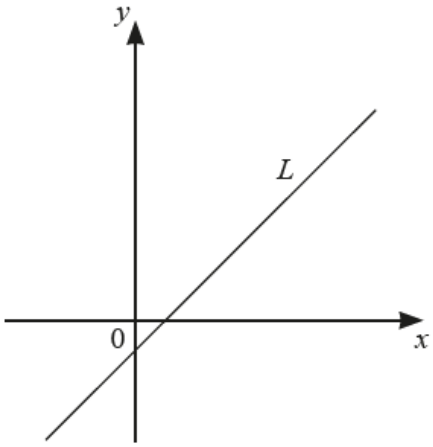
[2]

(b) On the grid, draw the graph of $y = \frac{5}{x}$ for $-5 \leqslant x \leqslant -1$ and $1 \leqslant x \leqslant 5$.



[4]

2. Nov/2022/Paper_0580_13/No.14



Explain why the equation of line L in the diagram cannot be $y = x + 2$.

.....

..... [1]

3. Nov/2022/Paper_0580_23/No.8

A is the point $(-3, 5)$ and B is the point $(5, 2)$.

Find the coordinates of the midpoint of the line AB.

(..... , ...) [2]

4. Nov/2022/Paper_0580_23/No.6

A kite is drawn on a coordinate grid.
The diagonals of the kite intersect at the point $(-2, -5)$.

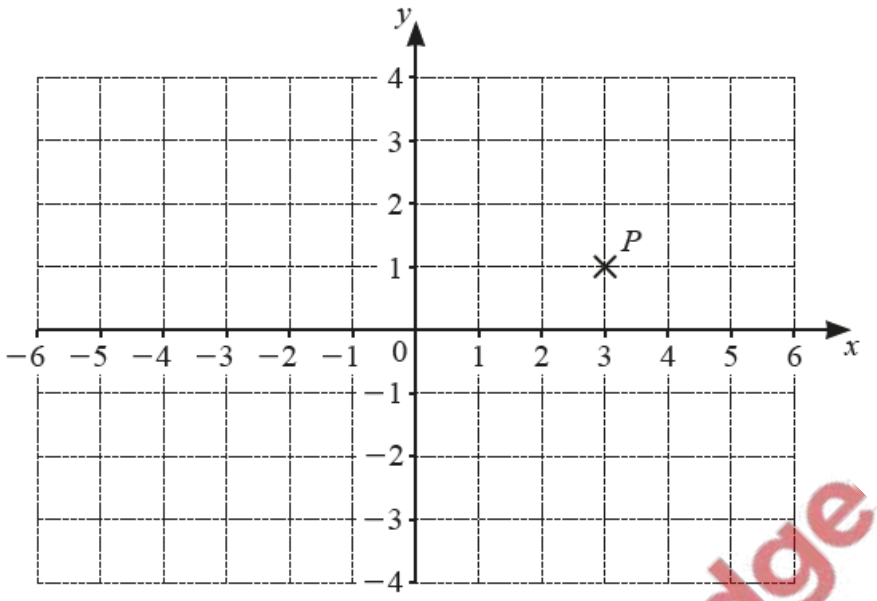
One diagonal has equation $y = 4x + 3$.

Find the equation of the other diagonal of the kite.
Give your answer in the form $y = mx + c$.

$y =$ ..... [3]

5. Nov/2022/Paper_0580_31/No.8(b, c)

(b)



(i) Write down the coordinates of point P.

(..... , ...) [1]

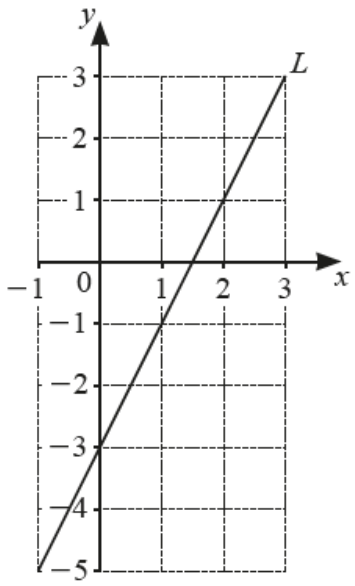
(ii) On the grid, plot point Q at $(-4, 2)$. [1]

(iii) $\overrightarrow{PR} = \begin{pmatrix} -2 \\ 1 \end{pmatrix}$

On the grid, plot point R. [1]

(iv) On the grid, draw the line $y = 3$. [1]

(c)



Line L is shown on the grid.

(i) Find the equation of line L in the form $y = mx + c$.

$y =$ ..... [2]

(ii) Write down the equation of a line parallel to line L.

$y =$ ..... [1]

6. Nov/2022/Paper_0580_42/No.8

AB is a line with midpoint M.
A is the point (2, 3) and M is the point (12, 7).

(a) Find the coordinates of B.

(..... , ...) [2]

(b) Show that the equation of the perpendicular bisector of AB is $2y + 5x = 74$.

[4]

(c) The perpendicular bisector of AB passes through the point N.
The point N has coordinates $(2, n)$.

Find the value of n.

$n =$ ..... [1]

(d) Points A, M and N form a triangle.

Find the area of the triangle.

..... [2]