

Name: _____

GCSE (1 – 9)
Solving Simultaneous Equations
Graphically

Instructions

- Use **black** ink or ball-point pen.
- 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.**

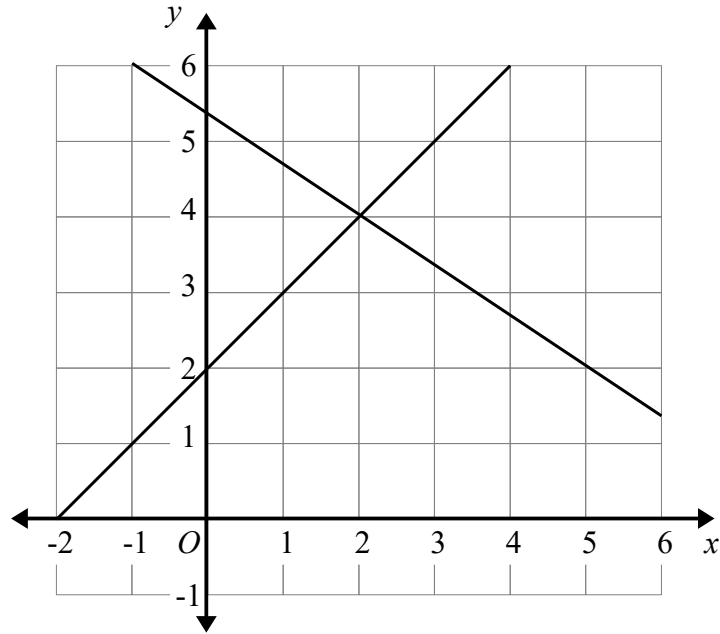
Information

- 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

- 1 The graphs of the straight lines with equations $y = x + 2$ and $2x + 3y = 16$ have been drawn on the grid.

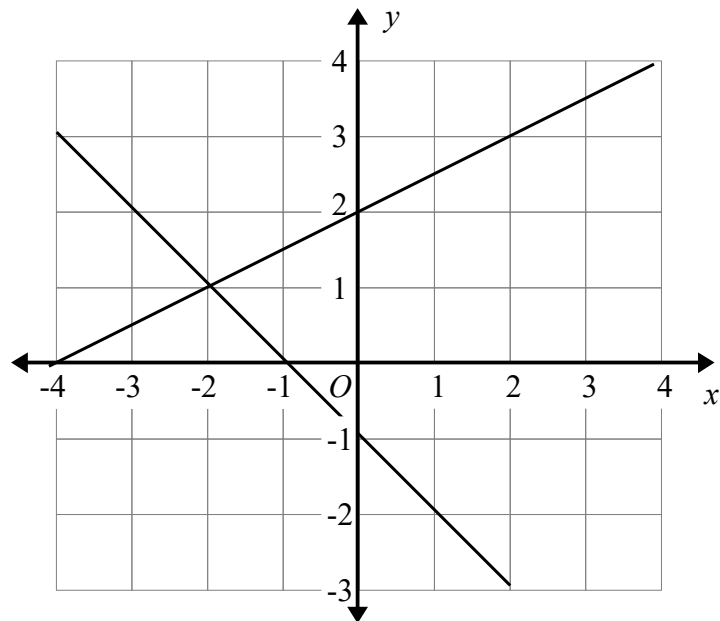


Use the graphs to solve the simultaneous equations

$$\begin{aligned}y &= x + 2 \\ 2x + 3y &= 16\end{aligned}$$

.....
(Total for Question 1 is 2 marks)

- 2 The graphs of the straight lines with equations $2y - x = 4$ and $x + y = -1$ have been drawn on the grid.

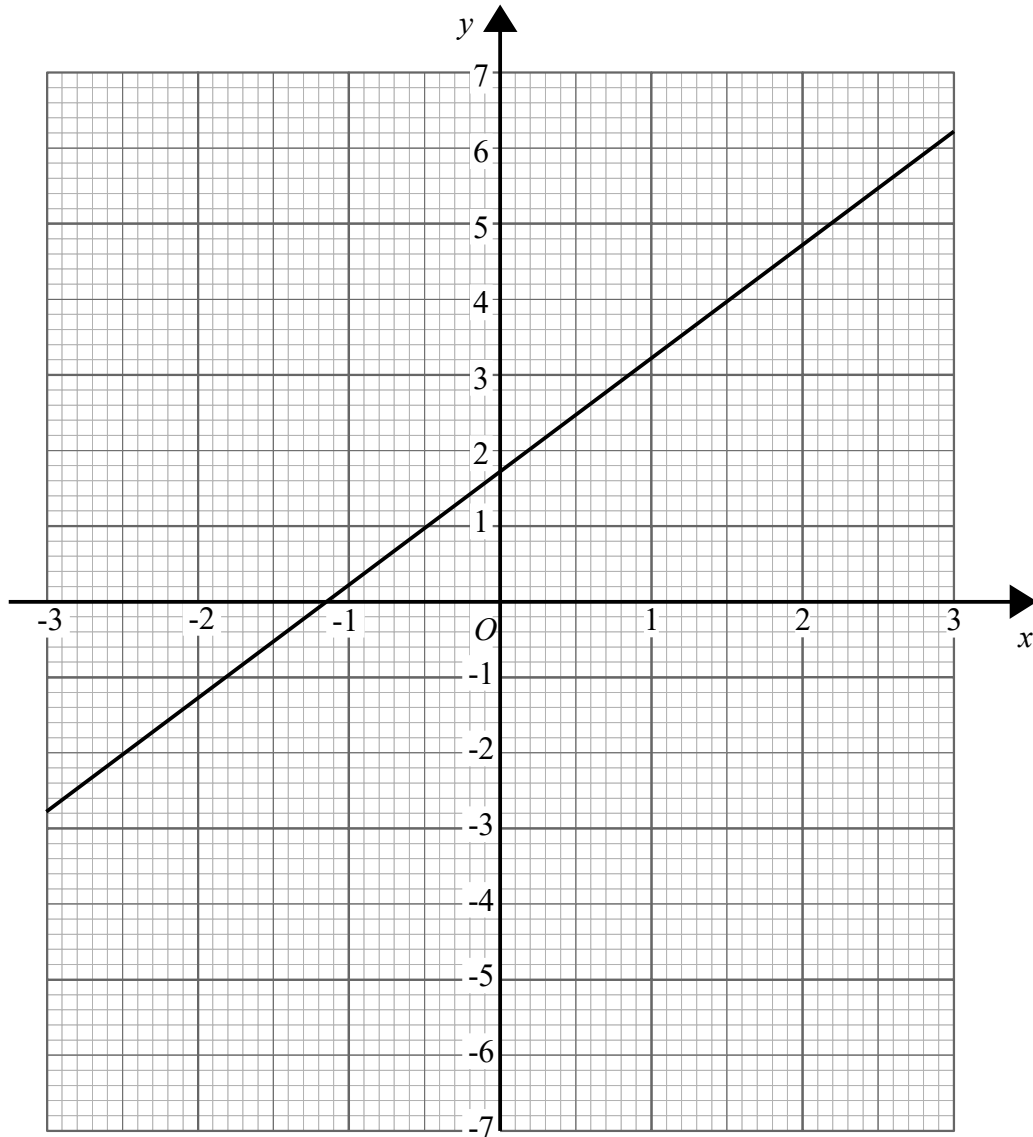


Use the graphs to solve the simultaneous equations

$$\begin{aligned}2y - x &= 4 \\ x + y &= -1\end{aligned}$$

.....
(Total for Question 2 is 2 marks)

3 The graph of $4y - 6x = 7$ is drawn on the grid.



(a) On the grid, draw the graph of $y = -2x$

(2)

(b) Use the graphs to solve the simultaneous equations

$$4y - 6x = 7$$

$$y = -2x$$

$x = \dots\dots\dots$

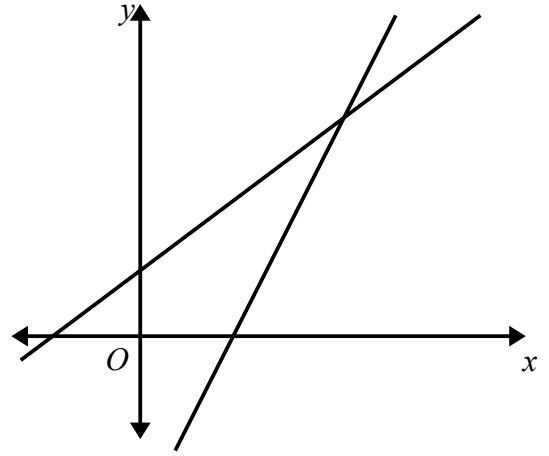
$y = \dots\dots\dots$

(2)

(Total for Question 3 is 4 marks)

- 4 The diagram shows two straight lines.
The equation of the lines are $y = 4x - 5$ and $y = 2x + 1$

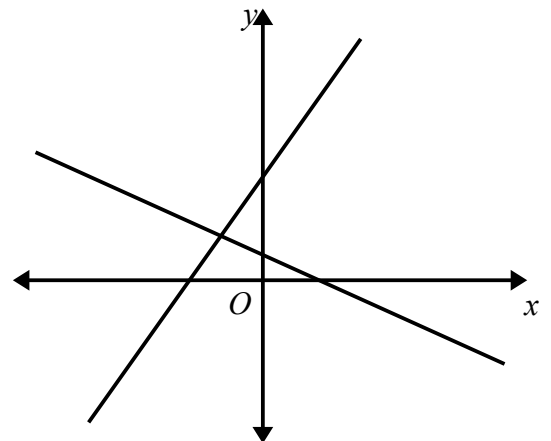
Work out the coordinates of the point where the line intersect.



(Total for Question 4 is 3 marks)

- 5 The diagram shows two straight lines.
The equation of the lines are $y = 2x + 3$ and $y = -\frac{2}{3}x + 1$

Work out the coordinates of the point where the line intersect.



(Total for Question 5 is 3 marks)