

Name:

Date:

Solving Simultaneous Equations Graphically

GCSE

Edexcel

Mathematics

Grade (9-1)

Mark

Score (%)

<hr/> 14

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Materials

For this paper you must have:

- Ruler
- Pencil, Rubber, Protractor and Compass
- Scientific calculator, which you are expected to use when appropriate

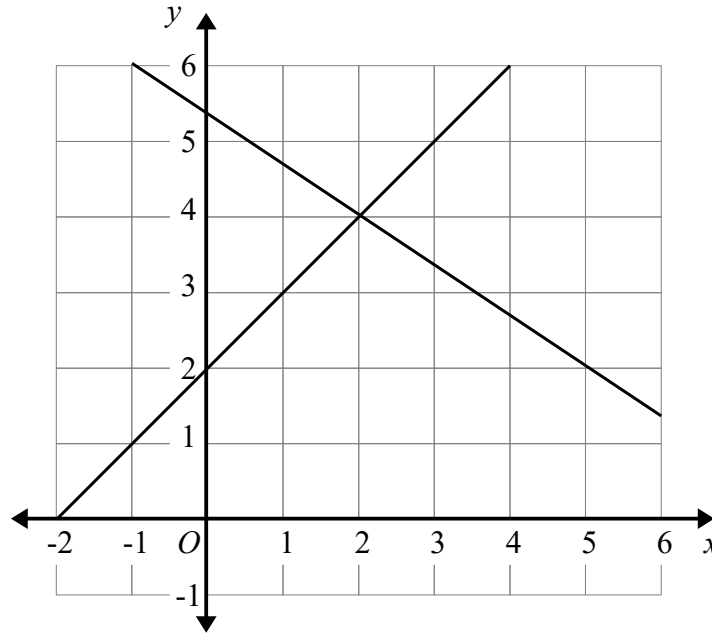
Instructions

- Answer all questions
- Answer questions in the space provided
- All working must be shown
- Do all rough work in this book. Cross out any rough work you don't want to be marked

Information

- The marks for the questions are shown in brackets

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



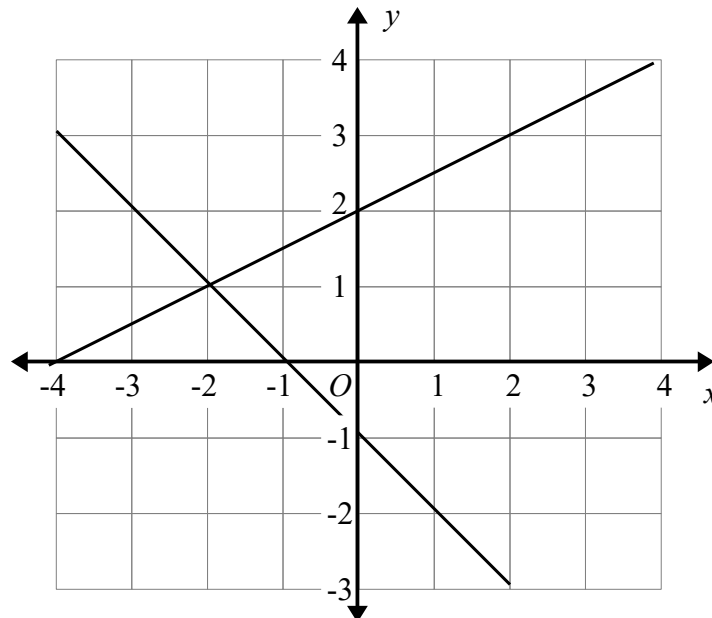
Use the graphs to solve the simultaneous equations

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

$x = \dots\dots\dots, y = \dots\dots\dots$

(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.



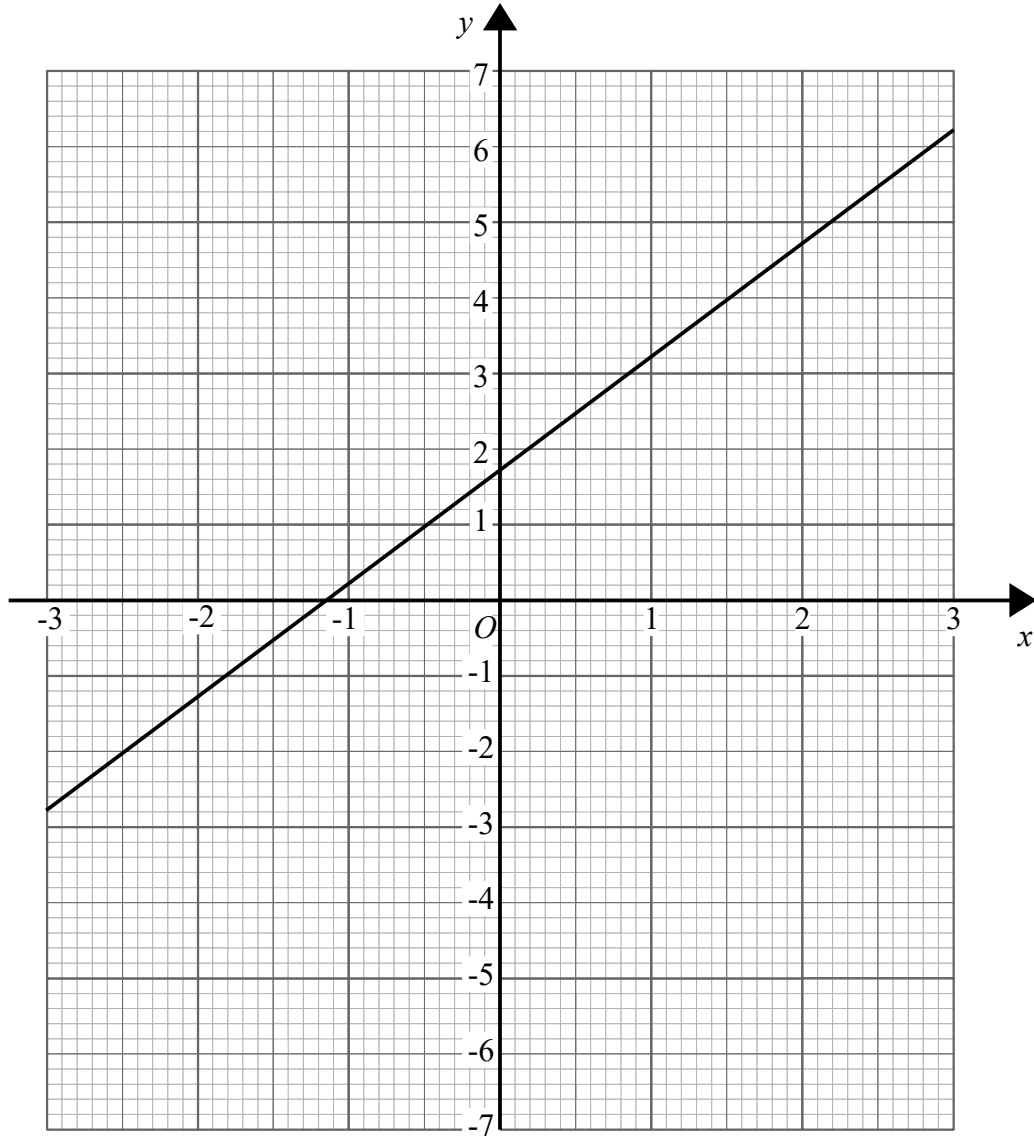
Use the graphs to solve the simultaneous equations

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

$x = \dots\dots\dots, y = \dots\dots\dots$

(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

$$\begin{aligned} 4y - 6x &= 7 \\ y &= -2x \end{aligned}$$

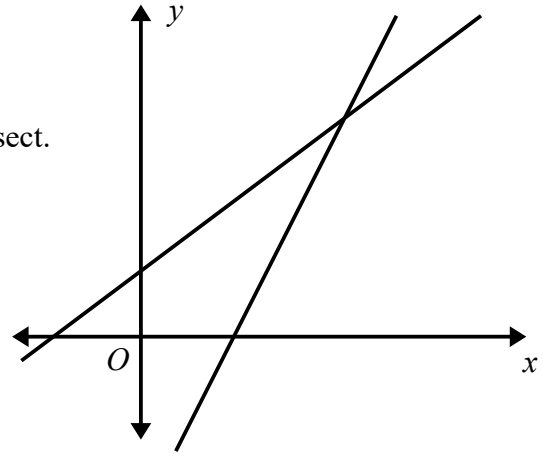
$x = \dots\dots\dots$

$y = \dots\dots\dots$

(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.

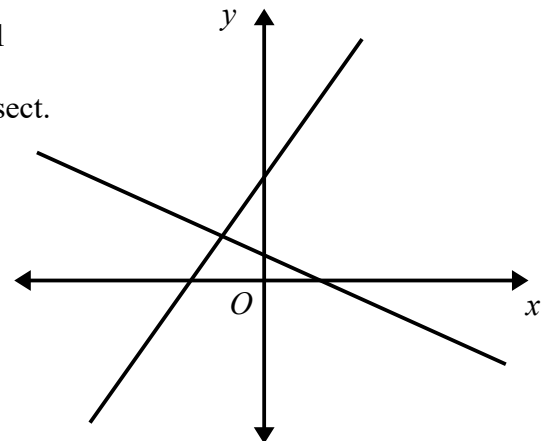


(.....,)

(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)