

Name:.....

Total Marks:.....

GCSE (9-1) Grade 5 Solving Simultaneous Equations Graphically



Instructions

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

Fill in the boxes at the top of this page with your name.

Answer **all** questions.

Answer the questions in the spaces provided

– there may be more space than you need.

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.

Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed

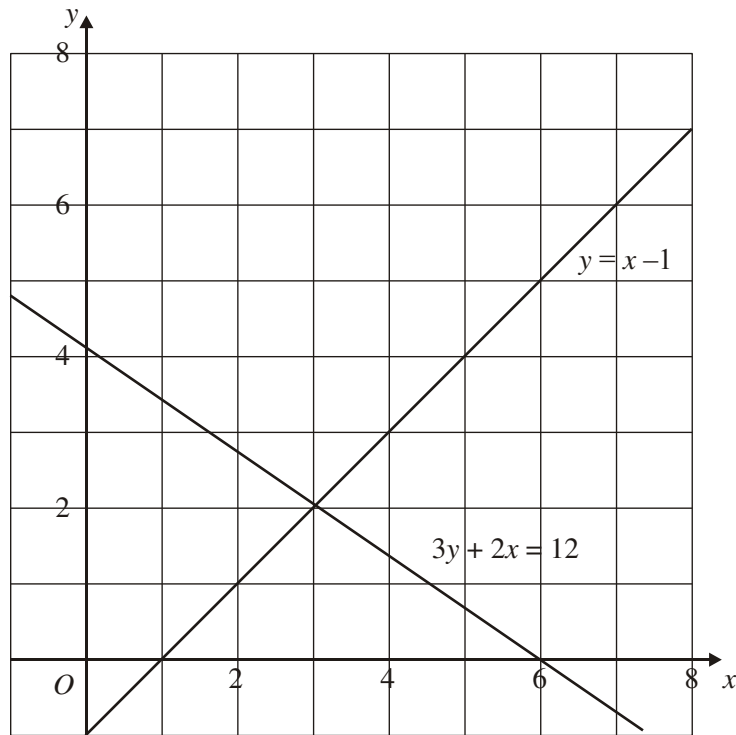
Advice

Read each question carefully before you start to answer it

Attempt every question

Check your answers if you have time at the end

1. The graphs of the straight lines with equations $3y + 2x = 12$ and $y = x - 1$ have been drawn on the grid.



Use the graphs to solve the simultaneous equations

$$3y + 2x = 12$$

$$y = x - 1$$

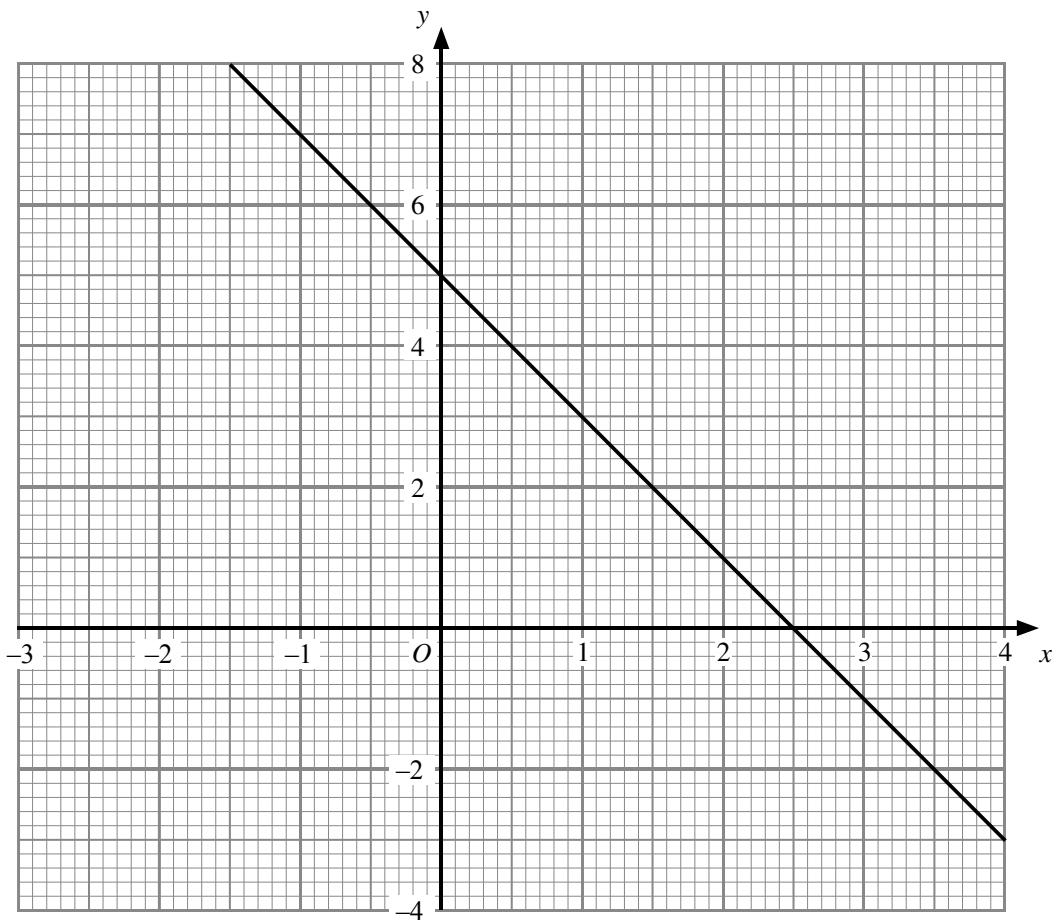
$$x = \dots\dots\dots$$

$$y = \dots\dots\dots$$

(2)

(Total 2 marks)

2. The straight line $y + 2x = 5$ has been drawn on the grid.



(a) Complete this table of values for $y = 2x - 1$

x	-1	0	1	2	3	4
y		-1		3	5	

(2)

(b) On the grid, draw the graph of $y = 2x - 1$

(2)

(c) Use your diagram to solve the simultaneous equations

$$y + 2x = 5$$

$$y = 2x - 1$$

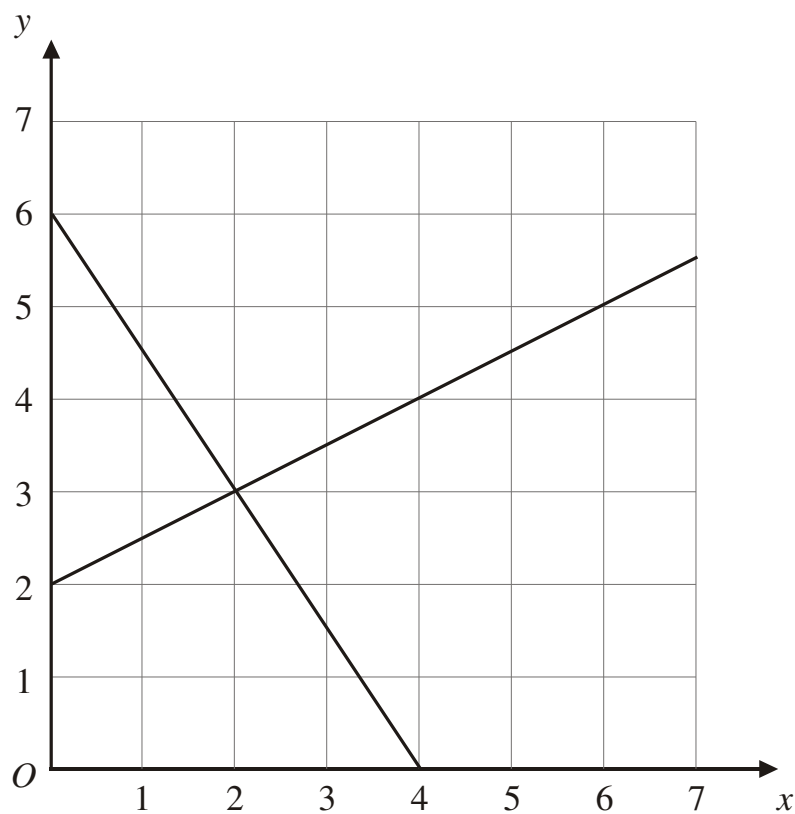
$$x = \dots\dots\dots$$

$$y = \dots\dots\dots$$

(2)

(Total 6 marks)

3.



The diagram shows graphs of $y = \frac{1}{2}x + 2$
and $2y + 3x = 12$

(a) Use the diagram to solve the simultaneous equations

$$y = \frac{1}{2}x + 2$$

$$2y + 3x = 12$$

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

(2)

(Total 2 marks)

4.

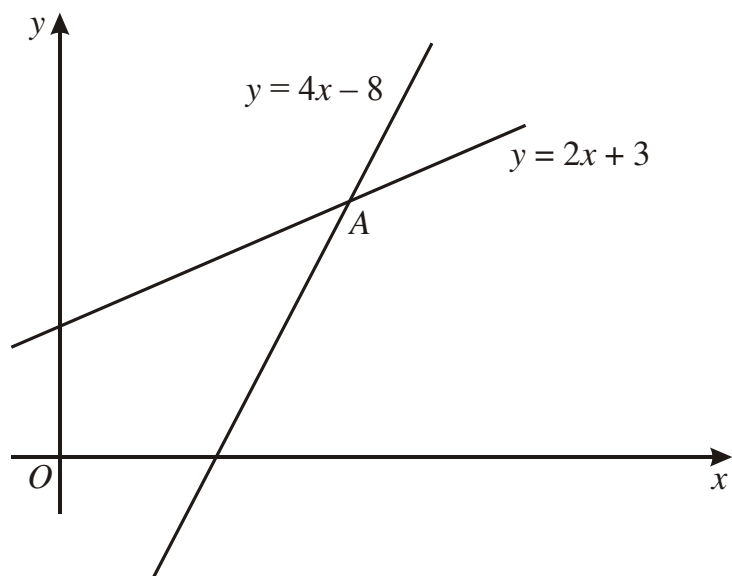


Diagram **NOT** accurately drawn

The diagram shows two straight lines intersecting at point A .
The equations of the lines are

$$y = 4x - 8$$
$$y = 2x + 3$$

Work out the coordinates of A .

(.....,)
(Total 3 marks)