

Simultaneous Equations

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **27**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

1 Solve the simultaneous equations

$$3x + y = 11$$

$$x + y = 5$$

$x = \dots\dots\dots$ $y = \dots\dots\dots$
(3)

(Total for Question 1 is 3 marks)

2 Solve the simultaneous equations

$$2x + 5y = 19$$

$$2x - y = 1$$

$x = \dots\dots\dots$ $y = \dots\dots\dots$
(3)

(Total for Question 2 is 3 marks)

- 3** Solve the simultaneous equations
Show clear algebraic working.

$$3x + 2y = 18$$

$$2x - y = 5$$

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

(3)

(Total for Question 3 is 3 marks)

- 4** Solve algebraically the simultaneous equations

$$5x + 3y = 21$$

$$2x + 5y = 16$$

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

(3)

(Total for Question 4 is 3 marks)

5 Solve the simultaneous equations

$$4x + y = 7$$

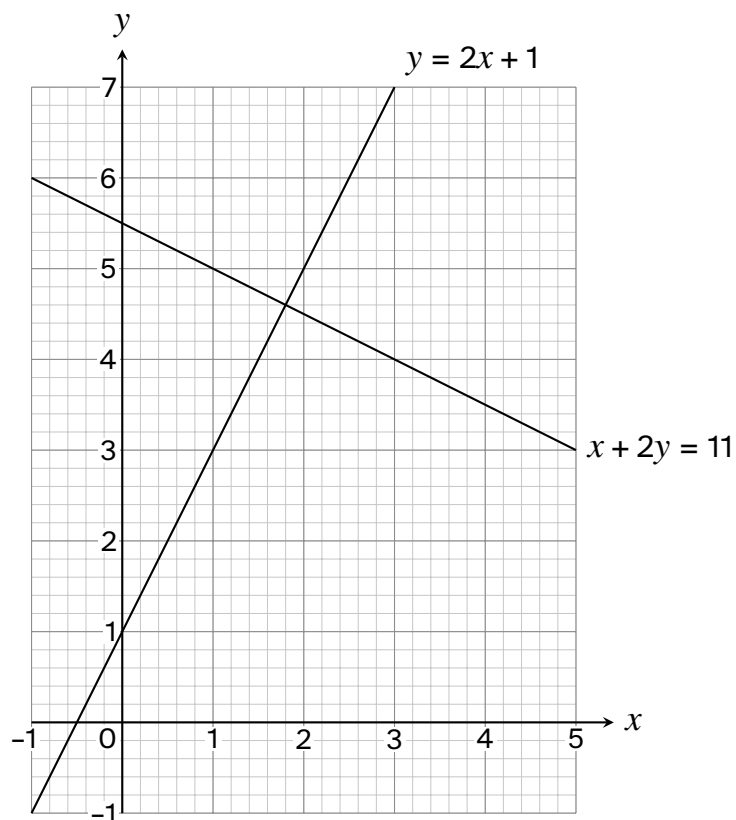
$$3x - 2y = 19$$

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

(3)

(Total for Question 5 is 3 marks)

- 6 The graphs of $y = 2x + 1$ and $x + 2y = 11$ are drawn on the grid.



Use the graphs to solve the simultaneous equations

$$\begin{aligned}y &= 2x + 1 \\x + 2y &= 11\end{aligned}$$

$x = \dots\dots\dots$ $y = \dots\dots\dots$
(1)

(Total for Question 6 is 1 mark)

- 7** The sum of two numbers is 45
The difference between the two numbers is 11
Work out the two numbers.

..... and
(3)

(Total for Question 7 is 3 marks)

- 8** 2 adult tickets and 3 child tickets for a cinema cost £41
1 adult ticket and 2 child tickets cost £24
Work out the cost of one adult ticket and the cost of one child ticket.

Adult £ Child £
(4)

(Total for Question 8 is 4 marks)

- 9 Kay buys 4 apples and 3 pears for £1.80
Joe buys 2 apples and 5 pears for £2.02

Work out the cost of one apple and the cost of one pear.

Apple p Pear p
(4)

(Total for Question 9 is 4 marks)
