Chhetri Academy

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GCSE MATHS

Algebra

Edexcel 1MA1 | Subtopic collection Topic 20

Simultaneous equations

Foundation tier

Past paper question booklet

9	2017-2025	Foundation
question groups	available papers	tier

Before you begin

1. Show working and use units where appropriate.
2. Use extra paper if you need more space.
3. Print at actual size (100%) for measurement questions.

Name _____ **Date** _____

Whole questions are retained for context; some parts cover other points. Legacy sources are labelled.

16 Solve the simultaneous equations

$$3x + y = -4$$
$$3x - 4y = 6$$

$x =$ .....

$y =$ .....

(Total for Question 16 is 3 marks)

27 Solve the simultaneous equations

$$x + 3y = 12$$
$$5x - y = 4$$

$x =$ .....

$y =$ .....

(Total for Question 27 is 3 marks)

25 Solve the simultaneous equations

$$5x + y = 21$$
$$x - 3y = 9$$

$x =$ .....

$y =$ .....

(Total for Question 25 is 3 marks)

30 Solve the simultaneous equations

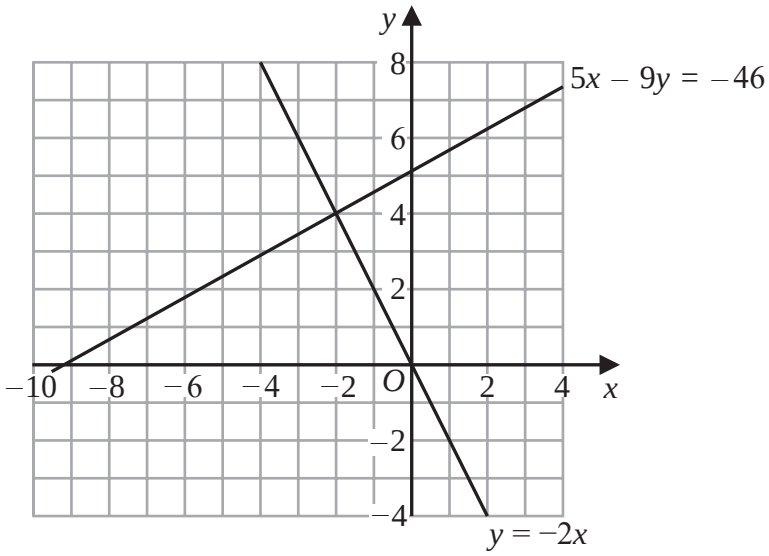
$$3x - 4y = 11$$
$$9x + 2y = 5$$

$x =$ .....

$y =$ .....

(Total for Question 30 is 3 marks)

28



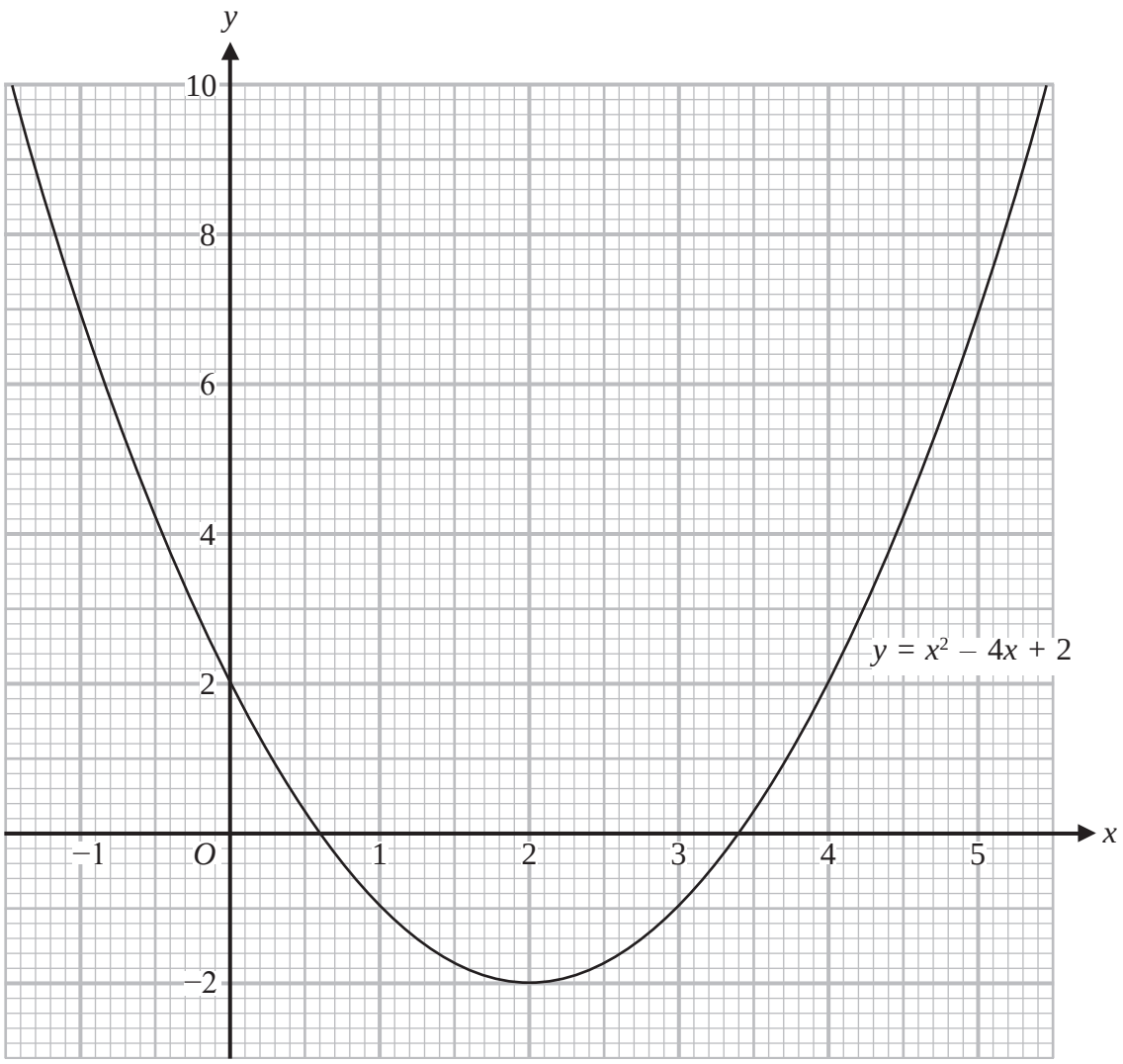
(a) Use these graphs to solve the simultaneous equations

$$5x - 9y = -46$$
$$y = -2x$$

$x =$ .....

$y =$ .....

(1)



(b) Use this graph to find estimates for the solutions of the quadratic equation $x^2 - 4x + 2 = 0$

.....

(2)

(Total for Question 28 is 3 marks)

28 Solve the simultaneous equations

$$5x + 2y = 27$$

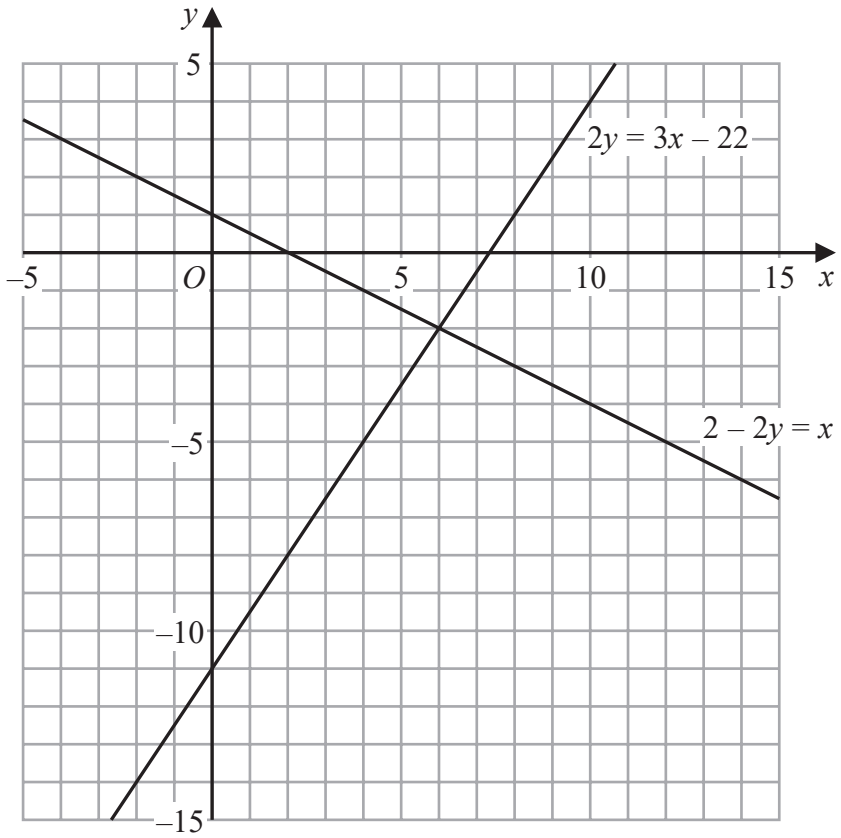
$$6x + 4y = 28$$

$x =$ .....

$y =$ .....

(Total for Question 28 is 3 marks)

28



Use these graphs to solve the simultaneous equations

$$2 - 2y = x$$
$$2y = 3x - 22$$

$x =$ .....

$y =$ .....

(Total for Question 28 is 1 mark)

30 Solve the simultaneous equations

$$3x + y = -4.5$$

$$4x + 3y = -3.5$$

$x =$ .....

$y =$ .....

(Total for Question 30 is 3 marks)

30 Solve algebraically the simultaneous equations

$$x + 7y = 14$$
$$3x - y = 9$$

$x =$ .....

$y =$ .....

(Total for Question 30 is 3 marks)