

Simultaneous Equations

For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

Total marks: **28**

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

1 Solve the simultaneous equations

$$x + y = 10$$

$$x - y = 4$$

[3 marks]

$x =$ _____ $y =$ _____

2 Solve the simultaneous equations

$$3x + y = 13$$

$$x - y = 3$$

[3 marks]

$x =$ _____ $y =$ _____

3 Solve the simultaneous equations

$$2x + 3y = 12$$

$$2x + y = 8$$

[3 marks]

$x =$ _____ $y =$ _____

4 Solve the simultaneous equations

$$3x + 2y = 14$$

$$x + 4y = 8$$

[3 marks]

$x =$ _____ $y =$ _____

5 Solve the simultaneous equations

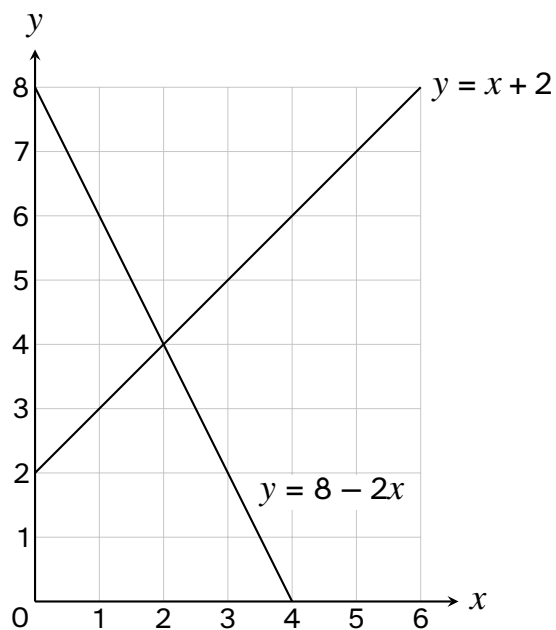
$$4x - 3y = 11$$

$$2x + 5y = -1$$

[3 marks]

$x =$ _____ $y =$ _____

6 The graphs of $y = x + 2$ and $y = 8 - 2x$ are drawn on the grid.



Use the graphs to solve the simultaneous equations

$$y = x + 2$$

$$y = 8 - 2x$$

[1 mark]

$x =$ _____ $y =$ _____

- 7 3 burgers and 2 drinks cost £13
 1 burger and 2 drinks cost £7

Work out the cost of one burger and the cost of one drink.

[4 marks]

Burger £_____ Drink £ _____

- 8 Here are two equations.

$$2x + y = 11$$

$$x - 3y = 4$$

Anna says the solution is $x = 5$, $y = 1$

Is she correct? Tick a box.

Show working to support your answer.

[2 marks]

☐ Yes

☐ No

- 9 Two numbers have a sum of 31 and a difference of 7

Work out the two numbers.

[3 marks]

Answer _____ and _____

- 10 Solve the simultaneous equations

$$5x + 2y = 20$$

$$3x - 2y = 4$$

[3 marks]

$x =$ _____ $y =$ _____