

Q Simultaneous Equations: Linear

- 9** Solve the simultaneous equations.

$$2x + y = 7$$

$$3x - y = 8$$

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

$$y = \dots\dots\dots [2]$$

- 5** Solve the simultaneous equations.

$$2p - 3q = 7$$

$$p + 3q = 2$$

$$p = \dots\dots\dots$$

$$q = \dots\dots\dots [2]$$

9 Solve the simultaneous equations.

$$3x - 2y = 21$$

$$5x + 2y = 51$$

$x =$
 $y =$ [2]

5 Solve the simultaneous equations.

(a) $x + 2y = 13$
 $x + 5y = 22$

$x =$
 $y =$ [2]

- 9 Solve the simultaneous equations.
You must show all your working.

$$3x - 2y = 19$$

$$x + y = 3$$

$$x = \dots\dots\dots$$
$$y = \dots\dots\dots [3]$$

- 9 Solve the simultaneous equations.

$$5x + 2y = -12$$

$$3x - y = -5$$

$$x = \dots\dots\dots$$
$$y = \dots\dots\dots [3]$$

11 Solve the simultaneous equations.

$$5x - 2y = 12$$

$$3x + 4y = 2$$

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

$$y = \dots\dots\dots [3]$$

8 Solve the simultaneous equations.

$$3x + 2y = -1$$

$$7x - y = 26$$

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

$$y = \dots\dots\dots [3]$$

- 7 Solve the simultaneous equations.
You must show all your working.

$$2x + y = 3$$

$$x - 5y = 40$$

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

$$y = \dots\dots\dots [3]$$

- 8 Solve the simultaneous equations.

$$3x - 2y = 12$$

$$5x + y = 7$$

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

$$y = \dots\dots\dots [3]$$

- 10 Solve the simultaneous equations.
You must show all your working.

$$\begin{aligned}3x - 8y &= 22 \\ x + 4y &= 4\end{aligned}$$

$$\begin{aligned}x &= \dots\dots\dots \\ y &= \dots\dots\dots \quad [3]\end{aligned}$$

- 4 (a) Solve the simultaneous equations.
You must show all your working.

$$\begin{aligned}2p - q &= 7 \\ 3p + 2q &= 7\end{aligned}$$

$$\begin{aligned}p &= \dots\dots\dots \\ q &= \dots\dots\dots \quad [3]\end{aligned}$$

- 8** Solve the simultaneous equations.
You must show all your working.

$$\begin{aligned}4x - 2y &= -13 \\ -3x + 4y &= 11\end{aligned}$$

$$\begin{aligned}x &= \dots\dots\dots \\ y &= \dots\dots\dots \quad [3]\end{aligned}$$

- 10** Solve the simultaneous equations.
You must show all your working.

$$\begin{aligned}4x + 3y &= -10 \\ 3x - 4y &= 5\end{aligned}$$

$$\begin{aligned}x &= \dots\dots\dots \\ y &= \dots\dots\dots \quad [4]\end{aligned}$$

11 Solve the simultaneous equations.

$$\begin{aligned}x - 3y &= 7 \\ 2x - 3y &= 11\end{aligned}$$

$$\begin{aligned}x &= \dots\dots\dots \\ y &= \dots\dots\dots \quad [2]\end{aligned}$$

10 Solve the simultaneous equations.

$$\begin{aligned}4x - 5y &= 13 \\ 3x - 2y &= 8\end{aligned}$$

$$\begin{aligned}x &= \dots\dots\dots \\ y &= \dots\dots\dots \quad [4]\end{aligned}$$

11 Solve the simultaneous equations.

$$\frac{1}{2}x - \frac{1}{3}y = 7$$

$$3x + y = 6$$

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

$$y = \dots\dots\dots [3]$$

8 Solve the simultaneous equations.

$$\frac{1}{2}x + \frac{2}{3}y = 8$$

$$3x - y = 18$$

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

$$y = \dots\dots\dots [3]$$

- 12** Solve the simultaneous equations.
You must show all your working.

$$\frac{3x}{2} + 5y = 5$$
$$4x - 3y = 46$$

$x = \dots\dots\dots$
 $y = \dots\dots\dots$ [4]

- 10** Solve the simultaneous equations.

$$2x + 3y = 5$$
$$y = 3x + 9$$

$x = \dots\dots\dots$
 $y = \dots\dots\dots$ [3]

21 The n th term of a sequence is $an^2 + bn - 4$.

The first term is -3 and the second term is 2 .

Find the value of a and the value of b .

$a = \dots\dots\dots$

$b = \dots\dots\dots$ [5]

22 These are the first four terms of a sequence.

2.75

6

11.25

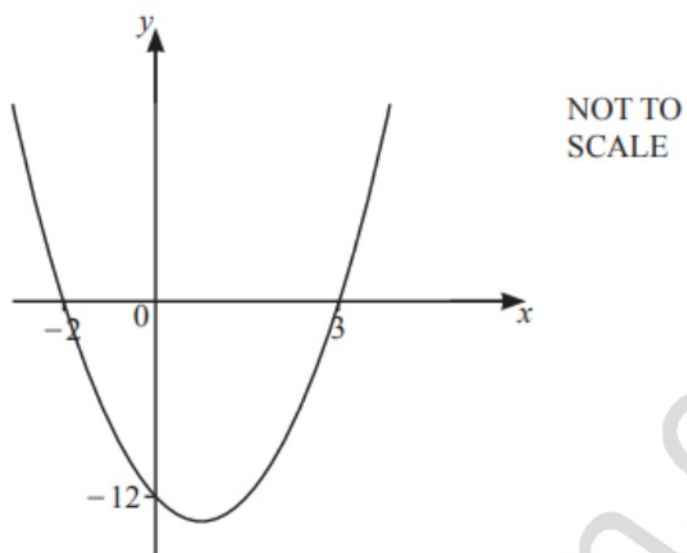
20

The n th term of this sequence is $\frac{1}{4}n^3 + an^2 + bn$.

Calculate the value of a and the value of b .

$a =$

$b =$ [5]



The equation of the curve is $y = ax^2 + bx - 12$.

Find the value of a and the value of b .

$a =$

$b =$ [3]