

Quadratic Simultaneous Equations
Exam Style Questions

1. Solve the following simultaneous equations

$$y = x^2 + 8x + 17$$
$$y = 13x + 31$$

$x = \dots\dots\dots$

$y = \dots\dots\dots$

(5 marks)

2. Solve the following simultaneous equations

$$x^2 + y^2 = 10$$

$$y = x + 2$$

$x = \dots\dots\dots$

$y = \dots\dots\dots$

(5 marks)



3. Solve the following simultaneous equations

$$x^2 + 3y^2 = 28$$
$$y = x + 2$$

$x = \dots\dots\dots$

$y = \dots\dots\dots$

(5 marks)

4. Solve the following simultaneous equations

$$x^2 + y^2 = 65$$

$$x - y + 7 = 0$$

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

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

(5 marks)



5. Solve the following simultaneous equations

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

$x = \dots\dots\dots$

$y = \dots\dots\dots$

(5 marks)



6. Solve the following simultaneous equations

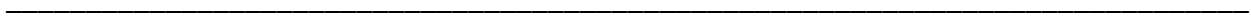
$$\begin{aligned}x^2 + 2y^2 &= 20 \\x &= y + 3\end{aligned}$$

Give your answers correct to 2 decimal places.

$x = \dots\dots\dots$

$y = \dots\dots\dots$

(5 marks)



7. Solve the following simultaneous equations

$$\begin{aligned}x^2 + y^2 &= 6 \\y &= 3x - 4\end{aligned}$$

Give your answers correct to 2 decimal places.

$x = \dots\dots\dots$

$y = \dots\dots\dots$

(5 marks)

8. Solve the following simultaneous equations

$$x^2 - y^2 = 5.25$$

$$2x + 3y = 4$$

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

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

(5 marks)
