Exam Papers Practice

GCSE OCR Math J560

Quadratic Simultaneous Equations

Question Paper

"We will help you to achieve A Star "

Question 1

Solve the simultaneous equations

$$y = 2x - 3$$

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

[6 marks]

Question 2

Solve the simultaneous equations

$$y = 3x + 2$$

$$x^2 + y^2 = 20$$

Show clear algebraic working.

[6 marks]

Question 3

Solve the simultaneous equations

$$y = 2x - 3$$
$$x^2 + y^2 = 41$$

Show clear algebraic working.

[6 marks]

Question 4

Solve the equations

$$x^2 + y^2 = 36$$

$$x = 2y + 6$$

[5 marks]

Question 5

Solve the simultaneous equations

$$y = 2x^2$$

$$y = 20 - 3x$$

Show clear algebraic working.

[5 marks]

Question 6

Solve the simultaneous equations

$$x^2 + y^2 = 26$$

$$y = 3 - 2x$$

Show clear algebraic working.

[6 marks]

Question 7

Solve $x^2 + y^2 = 20$
$y = 10 - 2x$

Show clear algebraic working.

[5 marks]

Question 8

Solve algebraically the simultaneous equations

$x^2 + y^2 = 25$

$y - 3x = 13$

[5 marks]

Question 9

Solve the simultaneous equations

$2x - y = 7$

$x^2 + y^2 = 34$

Show clear algebraic working.

[7 marks]

Question 10

Solve the simultaneous equations
$$4x^2 + 2x - 6y = 4$$
$$2x - 3y = -1$$

[7 marks]

Question 11

Solve the simultaneous equations $\quad x^2 + y^2 = 9$
$$x + y = 2$$

Give your answers correct to 2 decimal places.

[6 marks]

Question 12

Solve algebraically the simultaneous equations

$$x^2 + y^2 = 25$$

$$y - 2x = 5$$

[5 marks]

Question 13

Solve the simultaneous equations
$$x + y = 4$$
$$x^2 - 4x - 3y = 0$$

[7 marks]