SIMULTANEOUS EQUATIONS (QUADRATIC)

[ESTIMATED TIME: 75 minutes]



(+ IGCSE) EXAM QUESTION PRACTICE

1. [5 marks]

Solve the simultaneous equations

$$y = x^2$$
$$y = 2x + 15$$

 $x = \dots, y = \dots$

 $x = \dots, y = \dots$

Solve the simultaneous equations

$$y = x^2$$
$$y = 7x - 10$$

Solve the simultaneous equations

$$y=2x^2$$

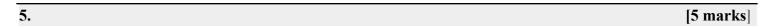
$$y = 20 - 3x$$

Solve the simultaneous equations

$$y = 3x - 1$$

$$x^2 + y^2 = 5$$

.....



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

 $y = 10 - 2x$

Solve the simultaneous equations

$$y = 3x + 2$$
$$x^2 + y^2 = 20$$

Show clear algebraic working.

.....

Solve the simultaneous equations

$$2x + y = 6$$

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

Solve the simultaneous equations

$$2x - y = 7$$

$$x^2 + y^2 = 34$$

Solve the simultaneous equations

$$y = 5x - 1$$

$$y = (x+1)^2$$

Solve the simultaneous equations

$$xy = 12$$
$$y - 3x = -9$$

Show clear algebraic working.

(7)

Solve the simultaneous equations

$$y = 3x^2 + 7x + 9$$
$$y = 4x + 15$$

Show clear algebraic working.

.....

Solve the simultaneous equations

$$3y^2 + 4x^2 = 16$$
$$y - 2x = -4$$

