SIMULTANEOUS EQUATIONS (QUADRATIC)

[ESTIMATED TIME: 75 minutes]

GCSE

(+ IGCSE) EXAM QUESTION PRACTICE

1. **[5 marks]**

Solve the simultaneous equations

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

$x =$ ..... , $y =$ .....

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Questions compiled by:
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2. **[5 marks]**

Solve the simultaneous equations

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

.....

3. **[5 marks]**

Solve the simultaneous equations

$$y = 2x^2$$

$$y = 20 - 3x$$

Show clear algebraic working.

.....

4. **[6 marks]**

Solve the simultaneous equations

$$y = 3x - 1$$

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

.....

5. **[5 marks]**

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

$y = 10 - 2x$

Show clear algebraic working.

6. **[6 marks]**

Solve the simultaneous equations

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

Show clear algebraic working.

7. **[7 marks]**

Solve the simultaneous equations

$$2x + y = 6$$

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

8. **[7 marks]**

Solve the simultaneous equations

$$2x - y = 7$$

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

Show clear algebraic working.

9. **[6 marks]**

Solve the simultaneous equations

$y = 5x - 1$

$y = (x + 1)^2$

Show clear algebraic working

10. **[7 marks]**

Solve the simultaneous equations

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

Show clear algebraic working.

.....

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11. **[5 marks]**

Solve the simultaneous equations

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

Show clear algebraic working.

.....

12. **[7 marks]**

Solve the simultaneous equations

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

Show clear algebraic working.

.....

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