# Name:_____

| GCSE (1 - 9)<br><br>Quadratic Simultaneous Equations | Solutions: |
|---|---|

These questions are compiled from released Pearson Edexcel GCSE maths exam papers

They contain exam questions from up until the ***November 2023*** exam series

More recent exam papers do exist but are withheld for mock exams

As new exam papers are released these worksheets will gradually be updated

The **most current** version of these worksheets will always be available at: kennethstafford.co.uk

| **Past Papers:** | **Similar Worksheets:** |
|---|---|
| **Solutions:** | **This worksheet:** |

**1**

Solve algebraically the simultaneous equations

$$x^2 + y^2 = 25$$
$$y - 3x = 13$$

.....

**(Total for Question 20 is 5 marks)**

*[Edexcel, GCSE, Summer 2017, Paper 1H, Q20]*

**2**

Prove algebraically that the straight line with equation $x - 2y = 10$ is a tangent to the circle with equation $x^2 + y^2 = 20$

**(Total for Question 19 is 5 marks)**

*[Edexcel, GCSE, Autumn 2017, Paper 3H, Q19]*

**3**

Solve algebraically the simultaneous equations

$$2x^2 - y^2 = 17$$
$$x + 2y = 1$$

**(Total for Question 19 is 5 marks)**

*[Edexcel, GCSE, Autumn 2018, Paper 3H, Q19]*

**4**

Solve algebraically the simultaneous equations

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

.....

**(Total for Question 20 is 5 marks)**

*[Edexcel, GCSE, Summer 2019, Paper 3H, Q20]*

**5**

**L** is the straight line with equation $y = 2x - 5$

**C** is a graph with equation $y^2 = 6x^2 - 25x - 8$

Using algebra, find the coordinates of the points of intersection of **L** and **C**.
You must show all your working.

(..... , .....)

(..... , .....)

**(Total for Question 22 is 5 marks)**

*[Edexcel, GCSE, Summer 2022, Paper 3H, Q22]*