

Surname:

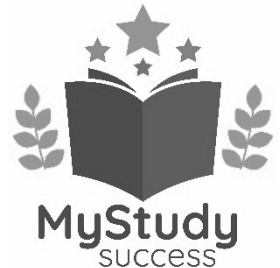
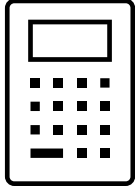
Forename(s):

# GCSE Mathematics

## Quadratic Formula

### ANSWERS

### Grade 7



**These questions get more difficult as you go through this paper.**

**This topic could come up on a calculator paper and non-calculator paper.**

#### **Materials**

- **Formulae Sheet** (on the next page)
- **Black** ink or ball-point pen
- Pencil
- Eraser
- Protractor
- Compass
- Tracing Paper
- **Calculator allowed**

#### **Instructions**

- Show **all** of your working.
- Draw diagrams in pencil.
- Plot graphs in pencil.
- Diagrams are **not** accurately drawn, unless otherwise indicated.

1 Solve  $x^2 - 8x + 10 = 0$

Give your solutions correct to 2 decimal places.

$x =$  \_\_\_\_\_

(Total for question 1 is 3 marks)

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2 Solve  $3x^2 + 15x - 16 = 4$

Give your solutions correct to 3 significant figures.

$x =$  \_\_\_\_\_

(Total for question 2 is 3 marks)

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3 Solve  $6 + 7x - 2x^2 = 0$

Give your solutions correct to 2 decimal places.

$x =$  \_\_\_\_\_

(Total for question 3 is 3 marks)

4 Solve  $x^2 + 8x - 3 = 0$

Give your answer in the form  $a \pm \sqrt{b}$

$x =$  \_\_\_\_\_

(Total for question 1 is 4 marks)

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5 Solve  $3x^2 + 6x - 5 = 0$

Give your answer in the form  $a \pm \frac{b}{c}\sqrt{6}$

$x =$  \_\_\_\_\_

(Total for question 2 is 4 marks)