

Name: \_\_\_\_\_

## GCSE (1 – 9)

# Quadratic Inequalities

### Instructions

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided  
– *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**

### Information

- The marks for each question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*

### Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end

1 Solve  $x^2 + 4x + 3 > 0$

.....  
**(Total for Question 1 is 3 marks)**

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2 Solve  $x^2 - x - 20 < 0$

.....  
**(Total for Question 2 is 3 marks)**

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3 Solve  $x^2 - 5x - 24 > 0$

.....  
**(Total for Question 3 is 3 marks)**

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4 Solve  $x^2 - 12x + 35 < 0$

.....  
**(Total for Question 4 is 3 marks)**

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5 Solve  $x^2 - 7x + 12 \leq 0$

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**(Total for Question 5 is 3 marks)**

6 Solve  $x^2 + 2x - 35 \geq 0$

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**(Total for Question 6 is 3 marks)**

7 Solve  $x^2 \leq 100$

.....  
**(Total for Question 7 is 4 marks)**

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8 Solve  $x^2 - 49 > 0$

.....  
**(Total for Question 8 is 4 marks)**

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**9** Solve  $x^2 > 8x + 9$

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**(Total for Question 9 is 4 marks)**

**10** Solve  $6x^2 + 11x - 10 < 0$

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**(Total for Question 10 is 4 marks)**

**11** Solve  $6x + 27 > x^2$

.....  
**(Total for Question 11 is 4 marks)**

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**12** Solve  $2x^2 - 11x + 9 < 0$

.....  
**(Total for Question 12 is 4 marks)**

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**13** Work out the integer values that satisfy:  $2x^2 - 10x + 10 < 0$

.....  
**(Total for Question 13 is 4 marks)**

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**14** Work out the integer values that satisfy:  $x^2 - 7x + 11 < 0$

.....  
**(Total for Question 14 is 4 marks)**

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