

GCSE Mathematics

H

Quadratic Inequalities

Higher | Grades 8-9

Total Marks	Time	Questions
64	64 min	20

Instructions:

- Do not use a calculator when you see: 
- Answer all questions in the spaces provided.
- Show all your working - marks are awarded for method as well as final answers.
- Cross through any work you do not want to be marked.
- Check your answers if you have time at the end.

© Teachably. This resource may not be copied or distributed without permission.

Want help from an expert maths tutor?

Book a free GCSE Maths consultation with our team at Teachably. Visit teachably.co.uk/book-call to get started.

Edexcel-style questions**Q1** 

Grade 8

Edexcel style

Solve $x^2 - x - 6 > 0$.

Answer

teachably

[3 marks]**Q2** 

Grade 8

Edexcel style

Solve $x^2 - x - 6 < 0$.

Answer

teachably

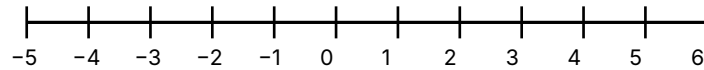
[3 marks]

Q3

Grade 8

Edexcel style

Solve $x^2 - x - 6 \geq 0$ and show the solution set on a number line.



Answer _____

teachably

[4 marks]

Q4

Grade 9

Edexcel style

Find the set of values of x that satisfy both $x^2 - x - 6 < 0$ and $x > 0$.

Answer _____

teachably

[4 marks]

Q5

Grade 9

Edexcel style

The graph shows $y = x^2 - 2x - 3$. Use the graph to solve $x^2 - 2x - 3 < 0$.

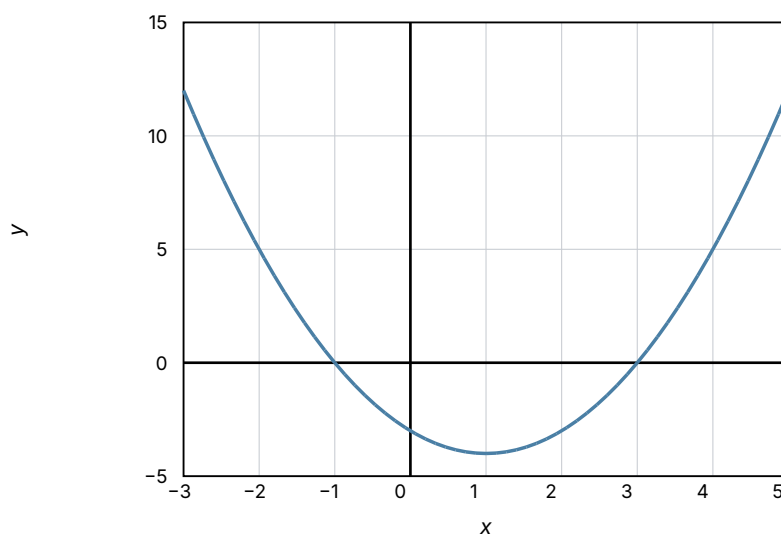


Diagram NOT accurately drawn

Answer _____

AQA-style questions**Q6** 

Grade 8

AQA style

Solve $x^2 - 2x - 8 > 0$.

Answer

teachably

[3 marks]**Q7** 

Grade 8

AQA style

Solve $x^2 - 2x - 8 < 0$.

Answer

teachably

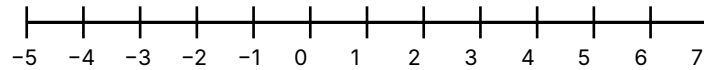
[3 marks]

Q8

Grade 8

AQA style

Solve $x^2 - 2x - 8 \leq 0$ and show the solution set on a number line.



Answer _____

teachably

[4 marks]

Q9

Grade 9

AQA style

Find the set of values of x that satisfy both $x^2 - 2x - 8 < 0$ and $x < 1$.

Answer _____

teachably

[4 marks]

Q10

Grade 9

AQA style

The graph shows $y = x^2 - 4x - 5$. Use the graph to solve $x^2 - 4x - 5 > 0$.

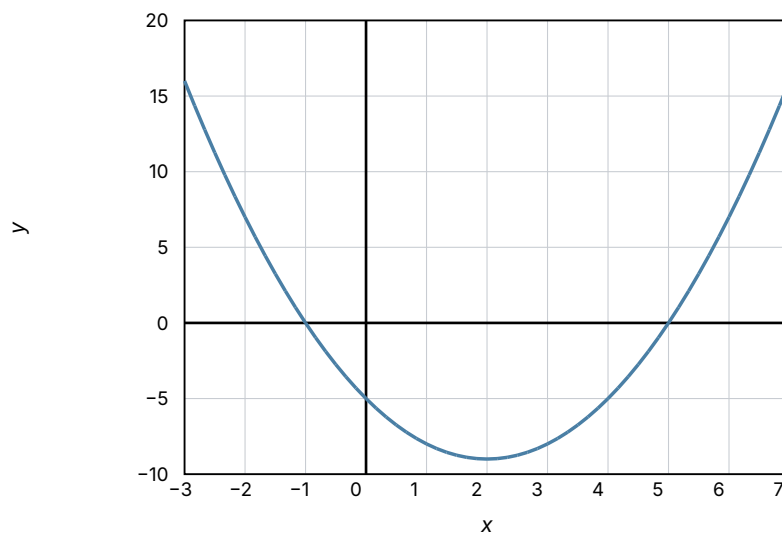


Diagram NOT accurately drawn

Answer _____

OCR-style questions**Q11** 

Grade 8

OCR style

Solve $x^2 - 5x + 6 > 0$.

Answer

teachably

[3 marks]**Q12** 

Grade 8

OCR style

Solve $x^2 - 5x + 6 < 0$.

Answer

teachably

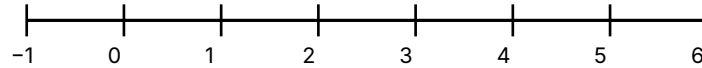
[3 marks]

Q13

Grade 8

OCR style

Solve $x^2 - 5x + 6 \geq 0$ and show the solution set on a number line.



Answer _____

teachably

[4 marks]

Q14

Grade 9

OCR style

Find the set of values of x that satisfy both $x^2 - 7x + 10 < 0$ and $x > 3$.

Answer _____

teachably

[4 marks]

Q15

Grade 9

OCR style

The graph shows $y = x^2 - x - 2$. Use the graph to solve $x^2 - x - 2 < 0$.

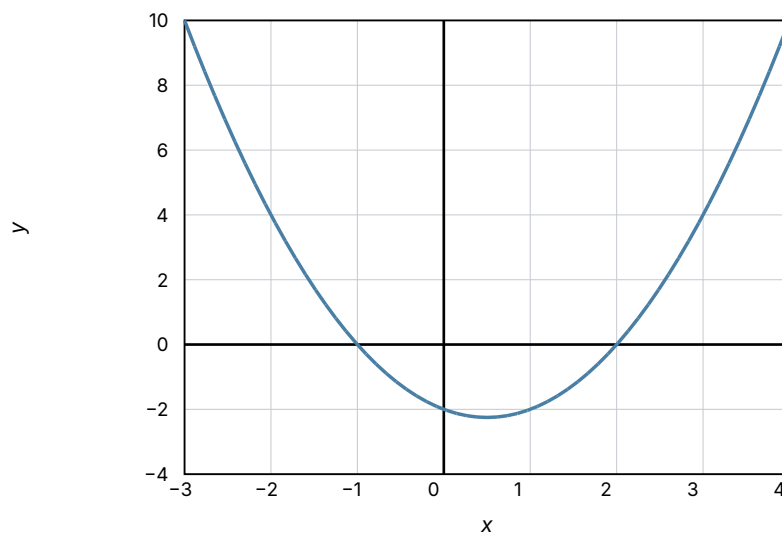


Diagram NOT accurately drawn

Answer _____

Teachably-style questions**Q16** 

Grade 8

Teachably style

Solve $x^2 + 3x - 10 > 0$.

Answer

teachably

[3 marks]**Q17** 

Grade 8

Teachably style

Solve $x^2 + 3x - 10 < 0$.

Answer

teachably

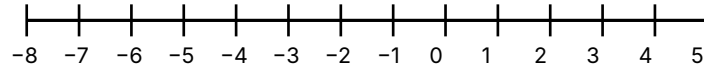
[3 marks]

Q18

Grade 8

Teachably style

Solve $x^2 + 3x - 10 \leq 0$ and show the solution set on a number line.



Answer _____

teachably

[4 marks]

Q19

Grade 9

Teachably style

Find the set of values of x that satisfy both $x^2 + 3x - 10 < 0$ and $x > -3$.

Answer _____

teachably

[4 marks]

Q20

Grade 9

Teachably style

The graph shows $y = x^2 - 3x - 4$. Use the graph to solve $x^2 - 3x - 4 > 0$.

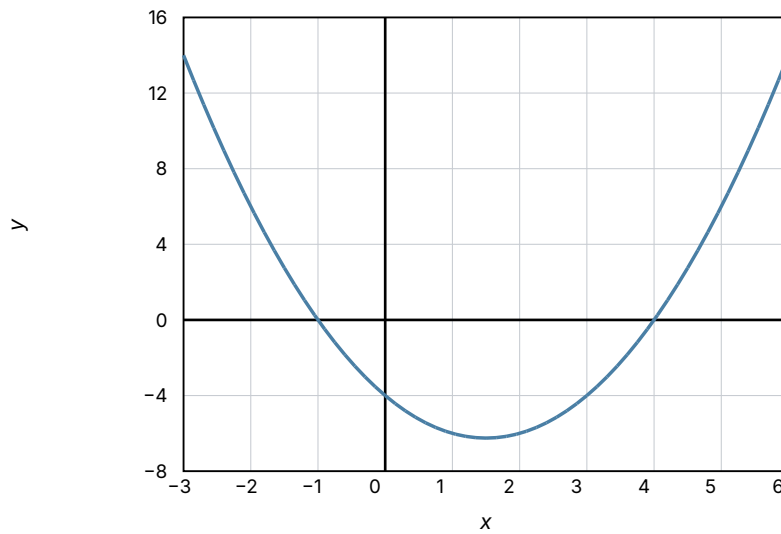


Diagram NOT accurately drawn

Answer _____

teachably

[2 marks]

END OF PAPER

Want help from an expert maths tutor?

Book a free GCSE Maths consultation with our team at Teachably. Visit teachably.co.uk/book-call to get started.