

GCSE Mathematics

F/H

Gradient, Parallel & Perpendicular Lines Practice

Foundation/Higher, Grade 5-8

Total Marks	Time	Questions
44	44 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.

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Edexcel-style questions**Q1** 

Grade 5

Edexcel style

Find the gradient of the line joining A(1, 2) and B(5, 10).

Answer

teachably

[2 marks]**Q2** 

Grade 5

Edexcel style

Are the lines $y = 3x + 2$ and $y = 3x - 5$ parallel? Give a reason for your answer.

Answer

teachably

[2 marks]**Q3** 

Grade 6

Edexcel style

Find the equation of the line parallel to $y = 2x + 3$ that passes through the point (1, 9).

Answer

teachably

[3 marks]

Q4

Grade 7

Edexcel style

A line has gradient 2. Find the gradient of a line perpendicular to it.

Answer

teachably

[1 mark]**Q5**

Grade 8

Edexcel style

Find the equation of the line perpendicular to $y = 2x + 1$ that passes through the point (4, 3).

Answer

teachably

[3 marks]

AQA-style questions**Q6** 

Grade 5

AQA style

Find the gradient of the line joining A(-2, 5) and B(4, -1).

Answer

teachably

[2 marks]**Q7** 

Grade 5

AQA style

Are the lines $y = 2x + 1$ and $y = 4x + 1$ parallel? Give a reason for your answer.

Answer

teachably

[2 marks]**Q8** 

Grade 6

AQA style

Find the equation of the line parallel to $y = -3x + 1$ that passes through the point (2, -1).

Answer

teachably

[3 marks]

Q9

Grade 7

AQA style

A line has gradient -4 . Find the gradient of a line perpendicular to it.

Answer

teachably

[1 mark]**Q10**

Grade 8

AQA style

Find the equation of the line perpendicular to $y = 3x - 2$ that passes through the point $(6, 1)$.

Answer

teachably

[3 marks]

OCR-style questions**Q11** 

Grade 5

OCR style

Find the gradient of the line joining A(0, -3) and B(4, 9).

Answer

teachably

[2 marks]**Q12** 

Grade 5

OCR style

Are the lines $y = -x + 6$ and $y = -x - 3$ parallel? Give a reason for your answer.

Answer

teachably

[2 marks]**Q13** 

Grade 6

OCR style

Find the equation of the line parallel to $y = 4x - 5$ that passes through the point (-1, 3).

Answer

teachably

[3 marks]

Q14

Grade 7

OCR style

A line has gradient $\frac{3}{5}$. Find the gradient of a line perpendicular to it.

Answer

teachably

[1 mark]**Q15**

Grade 8

OCR style

Find the equation of the line perpendicular to $y = -4x + 5$ that passes through the point (8, 3).

Answer

teachably

[3 marks]

Teachably-style questions**Q16** 

Grade 5

Teachably style

Find the gradient of the line joining A(-3, 4) and B(1, -8).

Answer

teachably

[2 marks]**Q17** 

Grade 5

Teachably style

Are the lines $y = 5x - 2$ and $y = 2x - 2$ parallel? Give a reason for your answer.

Answer

teachably

[2 marks]**Q18** 

Grade 6

Teachably style

Find the equation of the line parallel to $y = -2x + 6$ that passes through the point (3, 1).

Answer

teachably

[3 marks]

Q19 

Grade 7

Teachably style

A line has gradient $-\frac{2}{3}$. Find the gradient of a line perpendicular to it.

Answer

teachably

[1 mark]

Q20 

Grade 8

Teachably style

Find the equation of the line perpendicular to $y = -x + 7$ that passes through the point $(-2, -3)$.

Answer

teachably

[3 marks]

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