

GCSE Mathematics

H

Functions

Higher | Grades 6-9

Total Marks	Time	Questions
59	59 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 6

Edexcel style

 $f(x) = 3x - 2$. Find $f(5)$.

Answer

teachably

[2 marks]**Q2** 

Grade 7

Edexcel style

 $f(x) = 5x - 3$. Solve $f(x) = 17$.

Answer

teachably

[3 marks]**Q3** 

Grade 7

Edexcel style

 $f(x) = 2x + 1$ and $g(x) = x - 3$. Find $fg(2)$.

Answer

teachably

[3 marks]

Q4

Grade 8

Edexcel style

$f(x) = 4x - 3$. Find $f^{-1}(x)$.

Answer

teachably

[3 marks]**Q5**

Grade 9

Edexcel style

$f(x) = ax + b$. $f(2) = 7$ and $f(5) = 19$. Find the values of a and b .

Answer

teachably

[4 marks]

AQA-style questions**Q6** 

Grade 6

AQA style

 $f(x) = 4x + 1$. Find $f(-2)$.

Answer

teachably

[2 marks]**Q7** 

Grade 7

AQA style

 $f(x) = 2x + 7$. Solve $f(x) = -1$.

Answer

teachably

[3 marks]**Q8** 

Grade 7

AQA style

 $f(x) = x + 4$ and $g(x) = 3x$. Find $gf(1)$.

Answer

teachably

[3 marks]

Q9

Grade 8

AQA style

$f(x) = 2x + 7$. Find $f^{-1}(x)$.

Answer

teachably

[3 marks]**Q10**

Grade 9

AQA style

$g(x) = x + 3$ and $fg(x) = 2x + 5$. Find $f(x)$.

Answer

teachably

[3 marks]

OCR-style questions**Q11** 

Grade 6

OCR style

 $f(x) = x^2 - 3$. Find $f(4)$.

Answer

teachably

[2 marks]**Q12** 

Grade 7

OCR style

 $f(x) = (x + 3) \div 2$. Solve $f(x) = 5$.

Answer

teachably

[3 marks]**Q13** 

Grade 8

OCR style

 $f(x) = x^2$ and $g(x) = x + 2$. Find $fg(x)$, giving your answer as an expanded expression.

Answer

teachably

[3 marks]

Q14

Grade 8

OCR style

 $f(x) = (x - 5) \div 3$. Find $f^{-1}(x)$.

Answer

teachably

[3 marks]**Q15**

Grade 9

OCR style

 $f(x) = 3x - 4$. Solve $ff(x) = 11$.

Answer

teachably

[4 marks]

Teachably-style questions**Q16** 

Grade 6

Teachably style

 $f(x) = 2x^2 + 1$. Find $f(-3)$.

Answer

teachably

[2 marks]**Q17** 

Grade 7

Teachably style

 $f(x) = x^2 - 5$. Solve $f(x) = 4$.

Answer

teachably

[3 marks]**Q18** 

Grade 8

Teachably style

 $f(x) = 2x - 1$ and $g(x) = x^2$. Find $gf(x)$, giving your answer as an expanded expression.

Answer

teachably

[3 marks]

Q19

Grade 8

Teachably style

$f(x) = 5 - 2x$. Find $f^{-1}(x)$.

Answer

teachably

[3 marks]**Q20**

Grade 9

Teachably style

$f(x) = x + 3$ and $g(x) = x^2$. Solve $fg(x) = gf(x)$.

Answer

teachably

[4 marks]**END OF PAPER****Want help from an expert maths tutor?**

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