



Name _____
Date _____

GCSE Mathematics

F

Mutually Exclusive Events

Foundation Tier | Grades 4-5

Total Marks	Time	Questions
40	40 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 4

Edexcel style

A fair 6-sided dice is rolled. State, giving a reason, whether the events 'scoring a 3' and 'scoring an even number' are mutually exclusive.

Answer _____

teachably

[2 marks]**Q2** 

Grade 4

Edexcel style

Events A and B are mutually exclusive. $P(A) = 0.3$, $P(B) = 0.25$. Find $P(A \text{ or } B)$.

Answer _____

teachably

[2 marks]**Q3** 

Grade 5

Edexcel style

Events A and B are mutually exclusive. $P(A \text{ or } B) = 0.7$ and $P(A) = 0.45$. Find $P(B)$.

Answer _____

teachably

[2 marks]

Q4

Grade 4

Edexcel style

A fair 10-sided spinner is numbered 1 to 10. Find the probability that it lands on a number less than 3 or greater than 8.

Answer

teachably

[2 marks]**Q5**

Grade 5

Edexcel style

A spinner can land on red, blue, green or yellow. These outcomes are mutually exclusive. $P(\text{red}) = 0.2$, $P(\text{blue}) = 0.15$, $P(\text{yellow}) = 0.3$. Find $P(\text{red or blue or yellow})$.

Answer

teachably

[2 marks]

AQA-style questions**Q6** 

Grade 4

AQA style

A fair 6-sided dice is rolled. State, giving a reason, whether the events 'scoring a multiple of 3' and 'scoring an even number' are mutually exclusive.

Answer _____

teachably

[2 marks]**Q7** 

Grade 4

AQA style

Events A and B are mutually exclusive. $P(A) = 0.4$, $P(B) = 0.35$. Find $P(A \text{ or } B)$.

Answer _____

teachably

[2 marks]**Q8** 

Grade 5

AQA style

Events A and B are mutually exclusive. $P(A \text{ or } B) = 0.9$ and $P(B) = 0.55$. Find $P(A)$.

Answer _____

teachably

[2 marks]

Q9

Grade 4

AQA style

A fair 6-sided dice is rolled. Find the probability that it shows a 1 or a 6.

Answer

teachably

[2 marks]**Q10**

Grade 5

AQA style

A spinner can land on A, B, C or D. These outcomes are mutually exclusive. $P(A) = 0.1$, $P(B) = 0.25$, $P(C) = 0.4$. Find $P(A \text{ or } B \text{ or } C)$.

Answer

teachably

[2 marks]

OCR-style questions**Q11** 

Grade 4

OCR style

A fair 6-sided dice is rolled. State, giving a reason, whether the events 'scoring less than 3' and 'scoring more than 4' are mutually exclusive.

Answer _____

teachably

[2 marks]**Q12** 

Grade 4

OCR style

Events A and B are mutually exclusive. $P(A) = \frac{1}{5}$, $P(B) = \frac{2}{5}$. Find $P(A \text{ or } B)$.

Answer _____

teachably

[2 marks]**Q13** 

Grade 5

OCR style

Events A and B are mutually exclusive. $P(A \text{ or } B) = \frac{5}{6}$ and $P(A) = \frac{1}{3}$. Find $P(B)$.

Answer _____

teachably

[2 marks]

Q14

Grade 5

OCR style

A bag has 12 balls numbered 1 to 12. A ball is picked at random. Find the probability that it shows a multiple of 4 or a multiple of 5.

Answer

teachably

[2 marks]**Q15**

Grade 5

OCR style

A spinner can land on A, B, C or D. These outcomes are mutually exclusive. $P(A) = \frac{1}{6}$, $P(B) = \frac{1}{3}$, $P(C) = \frac{1}{4}$. Find $P(A \text{ or } B \text{ or } C)$.

Answer

teachably

[2 marks]

Teachably-style questions**Q16** 

Grade 4

Teachably style

A fair 6-sided dice is rolled. State, giving a reason, whether the events 'scoring an odd number' and 'scoring a prime number' are mutually exclusive.

Answer _____

teachably

[2 marks]**Q17** 

Grade 4

Teachably style

Events A and B are mutually exclusive. $P(A) = 0.18$, $P(B) = 0.47$. Find $P(A \text{ or } B)$.

Answer _____

teachably

[2 marks]**Q18** 

Grade 5

Teachably style

Events A and B are mutually exclusive. $P(A \text{ or } B) = 0.82$ and $P(A) = 0.37$. Find $P(B)$.

Answer _____

teachably

[2 marks]

Q19

Grade 5

Teachably style

A fair spinner has 8 equal sections numbered 1 to 8. Find the probability that it lands on an odd number or a multiple of 4.

Answer

teachably

[2 marks]**Q20**

Grade 5

Teachably style

A spinner can land on A, B, C or D. These outcomes are mutually exclusive. $P(A) = 0.05$, $P(B) = 0.6$, $P(C) = 0.15$. Find $P(A \text{ or } B \text{ or } C)$.

Answer

teachably

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

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