



Name _____
Date _____

GCSE Mathematics

F

Independent Events

Foundation Tier | Grades 5-6

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 5

Edexcel style

A fair coin is flipped, and then flipped again. State, giving a reason, whether the two results are independent.

Answer _____

teachably

[2 marks]**Q2** 

Grade 5

Edexcel style

Events A and B are independent. $P(A) = 0.4$, $P(B) = 0.5$. Find $P(A \text{ and } B)$.

Answer _____

teachably

[2 marks]**Q3** 

Grade 6

Edexcel style

Events A and B are independent. $P(A \text{ and } B) = 0.12$ and $P(A) = 0.3$. Find $P(B)$.

Answer _____

teachably

[2 marks]

Q4

Grade 5

Edexcel style

A fair coin is flipped and a fair 6-sided dice is rolled. Find the probability of getting heads and rolling a 6.

Answer _____

teachably

[2 marks]**Q5**

Grade 6

Edexcel style

A fair coin is flipped three times. Find the probability of getting heads all three times.

Answer _____

teachably

[2 marks]

AQA-style questions**Q6** 

Grade 5

AQA style

A bag contains 5 red and 3 blue counters. A counter is picked at random and not replaced, then a second counter is picked. State, giving a reason, whether the two picks are independent.

Answer _____

teachably

[2 marks]**Q7** 

Grade 5

AQA style

Events A and B are independent. $P(A) = 0.3$, $P(B) = 0.6$. Find $P(A \text{ and } B)$.

Answer _____

teachably

[2 marks]**Q8** 

Grade 6

AQA style

Events A and B are independent. $P(A \text{ and } B) = 0.15$ and $P(B) = 0.25$. Find $P(A)$.

Answer _____

teachably

[2 marks]

Q9

Grade 6

AQA style

Spinner A has 5 equal sections, 1 of which is red. Spinner B has 4 equal sections, 1 of which is blue. Both spinners are spun. Find the probability that spinner A lands on red and spinner B lands on blue.

Answer

teachably

[2 marks]**Q10**

Grade 6

AQA style

A fair 6-sided dice is rolled three times. Find the probability of rolling a 6 all three times.

Answer

teachably

[2 marks]

OCR-style questions**Q11** 

Grade 5

OCR style

A fair spinner is spun, and then spun again. State, giving a reason, whether the two results are independent.

Answer _____

teachably

[2 marks]**Q12** 

Grade 5

OCR style

Events A and B are independent. $P(A) = \frac{1}{4}$, $P(B) = \frac{2}{3}$. Find $P(A \text{ and } B)$.

Answer _____

teachably

[2 marks]**Q13** 

Grade 6

OCR style

Events A and B are independent. $P(A \text{ and } B) = \frac{1}{10}$ and $P(A) = \frac{1}{2}$. Find $P(B)$.

Answer _____

teachably

[2 marks]

Q14

Grade 6

OCR style

A fair coin is flipped and a fair spinner with 5 equal sections, 2 of which are green, is spun. Find the probability of getting tails and the spinner landing on green.

Answer

teachably

[2 marks]**Q15**

Grade 6

OCR style

A fair spinner has 3 equal sections, 1 of which is red. The spinner is spun three times. Find the probability that it lands on red all three times.

Answer

teachably

[2 marks]

Teachably-style questions**Q16** 

Grade 5

Teachably style

A bag contains 10 balls. A ball is picked at random and not replaced, then a second ball is picked. State, giving a reason, whether the two picks are independent.

Answer _____

teachably

[2 marks]**Q17** 

Grade 5

Teachably style

Events A and B are independent. $P(A) = 0.25$, $P(B) = 0.32$. Find $P(A \text{ and } B)$.

Answer _____

teachably

[2 marks]**Q18** 

Grade 6

Teachably style

Events A and B are independent. $P(A \text{ and } B) = 0.24$ and $P(A) = 0.4$. Find $P(B)$.

Answer _____

teachably

[2 marks]

Q19

Grade 6

Teachably style

Bag A contains 3 red and 2 blue counters. Bag B contains 4 yellow and 6 green counters. One counter is picked at random from each bag. Find the probability of picking red from bag A and yellow from bag B.

Answer _____

teachably

[2 marks]

Q20

Grade 6

Teachably style

Events A, B and C are independent. $P(A) = 0.5$, $P(B) = 0.4$, $P(C) = 0.2$. Find $P(A \text{ and } B \text{ and } C)$.

Answer _____

teachably

[2 marks]

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