ENGLAND GCSE MATHS AQA FOUNDATION · UNIT 12 · 25 QUESTIONS

Probability — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **A box contains 12 eggs. 3 eggs are cracked. The probability of picking a cracked egg is**

- **A** $\frac{3}{16}$
- **B** $\frac{1}{3}$
- **C** $\frac{1}{4}$
- **D** $\frac{3}{4}$

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2 **A bag contains 3 red glass marbles and 2 blue glass marbles. The probability of picking a red marble is**

- **A** $\frac{3}{5}$
- **B** $\frac{4}{5}$
- **C** $\frac{1}{2}$
- **D** $\frac{2}{5}$

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3 **An ice cream cone is chosen at random from 9 cones: 3 vanilla and 6 chocolate. The probability it is vanilla is**

- **A** $\frac{4}{9}$
- **B** $\frac{1}{3}$
- **C** $\frac{3}{11}$
- **D** $\frac{2}{3}$

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4 A shelf has 8 hardcover books: 2 red and 6 blue. The probability of picking a red book is

- A $\frac{3}{8}$
- B $\frac{1}{5}$
- C $\frac{3}{4}$
- D $\frac{1}{4}$

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5 A fruit bowl contains 4 lemons and 10 apples. The probability of picking a lemon is

- A $\frac{5}{14}$
- B $\frac{1}{4}$
- C $\frac{2}{7}$
- D $\frac{5}{7}$

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6 **Three silver coins are tossed. The probability of three heads is**

- **A** $\frac{1}{16}$
- **B** $\frac{1}{8}$
- **C** $\frac{1}{2}$
- **D** $\frac{3}{4}$

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7 **P(A) = 0.5, P(B) = 0.2, P(A and B) = 0.15. P(A or B) is**

- **A** 0.1
- **B** 0.7
- **C** 0.55
- **D** 0.65

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8 The probability of rain is 0.4. The probability of no rain is

- A 0.6
- B 0.4
- C 0.7
- D 0.5

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9 Two dice are rolled. The probability of a total of 7 is

- A $\frac{1}{6}$
- B $\frac{7}{36}$
- C $\frac{5}{36}$
- D $\frac{1}{4}$

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10 A fair six-sided dice is rolled. The probability of a 4 is

- A $\frac{1}{6}$
- B $\frac{1}{4}$
- C $\frac{1}{3}$
- D $\frac{1}{2}$

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11 A coin is tossed 50 times. It lands on heads 23 times. The relative frequency of heads is

- A 0.54
- B 0.46
- C 0.41
- D 0.51

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12 A fair coin is tossed. The probability of a head is

- A $\frac{1}{2}$
- B $\frac{2}{3}$
- C $\frac{1}{4}$
- D $\frac{1}{3}$

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13 P(A) = 0.3, P(B) = 0.2, P(A and B) = 0.15. P(A or B) is

- A 0.06
- B 0.5
- C 0.35
- D 0.45

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14 **Two dice are rolled. The probability of a total of 8 is**

- **A** $\frac{1}{6}$
- **B** $\frac{1}{9}$
- **C** $\frac{5}{36}$
- **D** $\frac{7}{36}$

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15 **A coin is tossed 100 times. It lands on heads 48 times. The relative frequency of heads is**

- **A** 0.43
- **B** 0.53
- **C** 0.48
- **D** 0.52

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16 **P(A) = 0.5, P(B) = 0.2, P(A and B) = 0.1. P(A or B) is**

A 0.8

B 0.1

C 0.7

D 0.6

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17 **The probability of rain is 0.8. The probability of no rain is**

A 0.2

B 0.1

C 0.8

D 0.3

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18 P(A) = 0.4, P(B) = 0.4, P(A and B) = 0.2. P(A or B) is

- A 0.16
- B 0.8
- C 0.6
- D 0.7

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19 Two dice are rolled. The probability of a total of 5 is

- A $\frac{5}{36}$
- B $\frac{1}{12}$
- C $\frac{1}{9}$
- D $\frac{1}{6}$

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20 **A coin is tossed 100 times. It lands on heads 63 times. The relative frequency of heads is**

- A 0.68
- B 0.58
- C 0.63
- D 0.37

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21 **P(A) = 0.3, P(B) = 0.3, P(A and B) = 0.2. P(A or B) is**

- A 0.5
- B 0.09
- C 0.6
- D 0.4

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22 Two dice are rolled. The probability of a total of 6 is

- A $\frac{1}{6}$
- B $\frac{7}{36}$
- C $\frac{1}{9}$
- D $\frac{5}{36}$

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23 A coin is tossed 100 times. It lands on heads 37 times. The relative frequency of heads is

- A 0.42
- B 0.63
- C 0.37
- D 0.32

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24 P(A) = 0.4, P(B) = 0.4, P(A and B) = 0.1. P(A or B) is

- A 0.16
- B 0.8
- C 0.9
- D 0.7

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25 Two dice are rolled. The probability of a total of 9 is

- A $\frac{5}{36}$
- B $\frac{1}{12}$
- C $\frac{1}{6}$
- D $\frac{1}{9}$

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ANSWER KEY

1.	C	**10.**	A	**19.**	C
2.	A	**11.**	B	**20.**	C
3.	B	**12.**	A	**21.**	D
4.	D	**13.**	C	**22.**	D
5.	C	**14.**	C	**23.**	C
6.	B	**15.**	C	**24.**	D
7.	C	**16.**	D	**25.**	D
8.	A	**17.**	A		
9.	A	**18.**	C		

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