ENGLAND GCSE MATHS EDEXCEL HIGHER · 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 **Two silver coins are flipped. The probability of two heads is**

A $\frac{1}{2}$

B $\frac{1}{8}$

C $\frac{3}{4}$

D $\frac{1}{4}$

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2 A bag holds 6 red glass marbles and 2 blue glass marbles. The probability of picking a red marble at random is

- **A** $\frac{3}{4}$
- **B** $\frac{1}{4}$
- **C** $\frac{2}{3}$
- **D** $\frac{7}{8}$

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3 A fruit bowl contains 4 lemons and 8 apples. The probability of picking a lemon is

- **A** $\frac{2}{3}$
- **B** $\frac{2}{7}$
- **C** $\frac{5}{12}$
- **D** $\frac{1}{3}$

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4 **A box holds 12 eggs. 4 eggs are cracked. The probability of picking a cracked egg at random is**

- **A** $\frac{2}{3}$
- **B** $\frac{1}{4}$
- **C** $\frac{1}{3}$
- **D** $\frac{5}{12}$

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5 **The probability of rain on Saturday is 0.5. If it rains, the probability a passenger train is late is 0.6. If it does not rain, the probability the train is late is 0.2. The probability the train is late is**

- **A** 0.5
- **B** 0.1
- **C** 0.3
- **D** 0.4

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6 **An ice cream cone is chosen at random from 11 cones: 3 vanilla and 8 chocolate. The probability it is vanilla is**

- **A** $\frac{3}{11}$
- **B** $\frac{4}{11}$
- **C** $\frac{3}{13}$
- **D** $\frac{8}{11}$

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

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

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8 A bag contains 4 red and 6 blue counters. Two are drawn without replacement. The probability both are red is

- **A** $\frac{1}{3}$
- **B** $\frac{2}{15}$
- **C** $\frac{2}{5}$
- **D** $\frac{4}{25}$

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9 A fair six-sided die is thrown once. The probability of scoring a 4 is

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

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10 A fair coin is tossed once. The probability of getting a head is

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

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11 P(A) = 0.5, P(B) = 0.3, P(A and B) = 0.1. P(A or B) is

- **A** 0.15
- **B** 0.9
- **C** 0.8
- **D** 0.7

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12 **In a class of 30, 18 are girls and 12 are boys. 12 girls and 5 boys wear glasses. The probability that a student chosen at random is a girl who wears glasses is**

- **A** $\frac{17}{30}$
- **B** $\frac{2}{3}$
- **C** $\frac{1}{6}$
- **D** $\frac{2}{5}$

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13 **A shelf has 7 hardcover books: 2 red and 5 blue. The probability of picking a red book is**

- **A** $\frac{2}{9}$
- **B** $\frac{5}{7}$
- **C** $\frac{2}{7}$
- **D** $\frac{3}{7}$

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14 A bag contains 3 red and 4 blue marbles. One red marble is removed. The probability the next marble is red is

- **A** $\frac{2}{7}$
- **B** $\frac{3}{7}$
- **C** $\frac{2}{3}$
- **D** $\frac{1}{3}$

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

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

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16 **The probability of rain is 0.3. The probability of no rain is**

A 0.6

B 0.7

C 0.8

D 0.3

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

A 0.63

B 0.37

C 0.42

D 0.32

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18 A bag contains 6 red and 5 blue counters. Two are drawn without replacement. The probability both are red is

- **A** $\frac{3}{11}$
- **B** $\frac{6}{11}$
- **C** $\frac{36}{121}$
- **D** $\frac{2}{11}$

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19 P(A) = 0.5, P(B) = 0.4, P(A and B) = 0.2. P(A or B) is

- **A** 0.9
- **B** 0.2
- **C** 0.7
- **D** 0.8

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20 In a class of 30, 18 are girls and 12 are boys. 10 girls and 6 boys wear glasses. The probability that a student chosen at random is a girl who wears glasses is

- **A** $\frac{8}{15}$
- **B** $\frac{5}{9}$
- **C** $\frac{1}{5}$
- **D** $\frac{1}{3}$

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21 A bag contains 3 red and 3 blue marbles. One red marble is removed. The probability the next marble is red is

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

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22 **A coin is tossed 50 times. It lands on heads 31 times. The relative frequency of heads is**

A 0.38

B 0.62

C 0.57

D 0.67

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23 **P(A) = 0.4, P(B) = 0.2, P(A and B) = 0.15. P(A or B) is**

A 0.08

B 0.6

C 0.45

D 0.55

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24 In a class of 30, 18 are girls and 12 are boys. 10 girls and 5 boys wear glasses. The probability that a student chosen at random is a girl who wears glasses is

- **A** $\frac{1}{6}$
- **B** $\frac{5}{9}$
- **C** $\frac{1}{3}$
- **D** $\frac{1}{2}$

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

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

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ANSWER KEY

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

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