Multiple choice questions - Probability: outcomes and sample spaces

Year: Year 8 · 10

Question 1 The probability of an impossible event is

- ◯ **A.** 0
- ◯ **B.** 1
- ◯ **C.** 0.5
- ◯ **D.** -1

Question 2 A fair coin is tossed. P(tails) =

- ◯ **A.** $\frac{1}{3}$
- ◯ **B.** $\frac{1}{2}$
- ◯ **C.** 1
- ◯ **D.** 0

Question 3 A bag has 4 red and 6 blue counters. P(red) =

- ◯ **A.** $\frac{4}{6}$
- ◯ **B.** $\frac{2}{5}$
- ◯ **C.** $\frac{3}{5}$
- ◯ **D.** $\frac{1}{4}$

Question 4 $P(A) = 0.7$. $P(\text{not } A) =$

- ◯ **A.** 0.3
- ◯ **B.** 0.7
- ◯ **C.** 1.7
- ◯ **D.** -0.7

Question 5 Two coins are tossed. How many outcomes?

- ◯ **A.** 2
- ◯ **B.** 3
- ◯ **C.** 4
- ◯ **D.** 6

Question 6 A spinner wins with probability 0.25. Expected wins in 200 spins?

- ◯ **A.** 25
- ◯ **B.** 50

- ◯ **C.** 100
- ◯ **D.** 75

Question 7 Which cannot be a probability?

- ◯ **A.** 0.9
- ◯ **B.** 1.2
- ◯ **C.** 0
- ◯ **D.** 100%

Question 8 How many outcomes for two dice?

- ◯ **A.** 12
- ◯ **B.** 18
- ◯ **C.** 36
- ◯ **D.** 6

Question 9 A coin has landed on heads 18 times in 30 tosses. Relative frequency?

- ◯ **A.** 0.5
- ◯ **B.** 0.6
- ◯ **C.** 0.18
- ◯ **D.** 1.8

Question 10 $A \cap B$ means

- ◯ **A.** in A or B
- ◯ **B.** in A and B
- ◯ **C.** not in A
- ◯ **D.** in neither

Answer grid - Probability: outcomes and sample spaces

Year: Year 8

Question	Answer	Explanation
1	**A**	Impossible means 0.
2	**B**	Two equally likely outcomes.
3	**B**	$\frac{4}{10}$.
4	**A**	$1 - 0.7$.
5	**C**	HH, HT, TH, TT.
6	**B**	0.25×200.
7	**B**	Greater than 1.
8	**C**	6×6.
9	**B**	$\frac{18}{30}$.
10	**B**	Intersection is both.