Multiple choice questions - Probability basics

Year: Year 7 · 10

Question 1 What is the probability of an impossible event?

- ◯ **A.** 0
- ◯ **B.** 1
- ◯ **C.** 0.5
- ◯ **D.** $\frac{1}{2}$

Question 2 A fair dice is rolled. What is $P(\text{odd})$?

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

Question 3 A bag has 4 red and 6 blue counters. What is $P(\text{red})$?

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

Question 4 $P(\text{rain}) = 0.3$. What is $P(\text{no rain})$?

- ◯ **A.** 0.3
- ◯ **B.** 0.6
- ◯ **C.** 1.3
- ◯ **D.** 0.7

Question 5 Which cannot be a probability?

- ◯ **A.** 1.2
- ◯ **B.** 0.8

- ◯ **C.** $\frac{3}{4}$
- ◯ **D.** 0

Question 6 How many outcomes are there when two coins are flipped?

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

Question 7 A fair dice is rolled 120 times. How many fives do you expect?

- ◯ **A.** 5
- ◯ **B.** 12
- ◯ **C.** 20
- ◯ **D.** 24

Question 8 A fair spinner has 5 equal sections numbered 1 to 5. What is $P(\text{number} > 3)$?

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

Question 9 The probabilities of A, B and C are 0.5, 0.2 and x. What is x?

- ◯ **A.** 0.3
- ◯ **B.** 0.7
- ◯ **C.** 0.1
- ◯ **D.** 0.25

Question 10 A pin lands point up 30 times in 100 throws. The relative frequency is

- ◯ **A.** 30
- ◯ **B.** 0.3
- ◯ **C.** 0.7
- ◯ **D.** 3

Answer grid - Probability basics

Year: Year 7

Question	Answer	Explanation
1	**A**	Impossible events have probability 0.
2	**B**	1, 3 and 5 are odd: 3 out of 6.
3	**C**	4 out of 10 simplifies to 2/5.
4	**D**	1 - 0.3 = 0.7.
5	**A**	Probabilities cannot be greater than 1.
6	**B**	HH, HT, TH, TT.
7	**C**	1/6 of 120 = 20.
8	**D**	4 and 5: two out of five.
9	**A**	1 - 0.7 = 0.3.
10	**B**	30/100 = 0.3.