Multiple choice questions - Probability: experiments, Venn and tree diagrams

Year: Year 11 · 10

Question 1 A probability of 1 means the event is

- ◯ **A.** impossible
- ◯ **B.** unlikely
- ◯ **C.** certain
- ◯ **D.** even

Question 2 P(not A) when P(A)=0.35 is

- ◯ **A.** 0.35
- ◯ **B.** 0.65
- ◯ **C.** 1.35
- ◯ **D.** 0.5

Question 3 A coin is biased. In 100 tosses there are 62 heads. The estimate of P(head) is

- ◯ **A.** 0.5
- ◯ **B.** 0.62
- ◯ **C.** 0.38
- ◯ **D.** 62

Question 4 P(rain)=0.2. Expected wet days in 50 days:

- ◯ **A.** 2
- ◯ **B.** 5
- ◯ **C.** 10
- ◯ **D.** 20

Question 5 Two dice, the number of outcomes in total is

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

Question 6 When events are independent, P(A and B)=

- ◯ **A.** P(A)+P(B)
- ◯ **B.** P(A)xP(B)

- ◯ **C.** P(A)-P(B)
- ◯ **D.** P(A)/P(B)

Question 7 In a tree diagram you ... along the branches.

- ◯ **A.** add
- ◯ **B.** subtract
- ◯ **C.** multiply
- ◯ **D.** divide

Question 8 A bag has 3 red and 2 blue. One red is removed (no replacement). P(second is red) is

- ◯ **A.** 3/5
- ◯ **B.** 2/4
- ◯ **C.** 2/5
- ◯ **D.** 3/4

Question 9 P(A)=0.4, P(B)=0.3, mutually exclusive. P(A or B)=

- ◯ **A.** 0.12
- ◯ **B.** 0.7
- ◯ **C.** 0.1
- ◯ **D.** 0.3

Question 10 In a Venn diagram the outside region shows

- ◯ **A.** both sets
- ◯ **B.** only set A
- ◯ **C.** neither set
- ◯ **D.** only set B

Answer grid - Probability: experiments, Venn and tree diagrams

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Question	Answer	Explanation
1	**C**	Certain.
2	**B**	1-0.35.
3	**B**	Relative frequency.
4	**C**	0.2 x 50.
5	**C**	6 x 6.
6	**B**	Multiply.
7	**C**	Multiply.
8	**B**	2 red left out of 4.
9	**B**	Add.
10	**C**	Neither.