

AXIOMS OF PROBABILITY

In mathematics, axiomatic probability is a probability theory that has a unifying property. It is responsible for underlying certain axioms that apply to all kinds of methods of probabilities. To define axiomatic probability, we can explain it as just another method of assuming, predicting and guessing the probable outcome or conclusion for a given event. To make guesses about certain probabilities, some axioms are stated beforehand, based on which the outcomes of probability are discerned.

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Q1: According to the axioms of probability, what is the probability of an event that is certain to occur?

- A: 0
 - B: 1
 - C: 0.5
 - D: It depends on the event.
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Q2: If two events are mutually exclusive, what can you conclude about their intersection?

- A: It is an empty set.
 - B: It is always equal to 1.
 - C: It is always equal to 0.
 - D: It is equal to the sum of their probabilities.
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Q3: What is the probability of getting a head or a tail when flipping a fair coin?

- A: 0
 - B: 0.5
 - C: 1
 - D: 2
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Q4: Which is not an axiom of probability?

- A: Theory of Non-Negativity
 - B: Theory of Normalisation
 - C: Theory of Additivity
 - D: Theory of Subtraction
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Q5: There are _____ main axioms of probability

- A: One
 - B: Two
 - C: Three
 - D: Four
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Q6: What is the correct explanation of the theory of normalization?

- A: Probability is always non-negative.
 - B: The probability of all conceivable outcomes is always equal to one.
 - C: When two occurrences occur concurrently, the total of their probabilities acts as the probability of their union.
 - D: The probability can be less than 0.
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Q7: Classical probability is also known as:

- A: Theoretical probability
 - B: Empirical probability
 - C: Subjective probability
 - D: Axiomatic probability
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Q8: Empirical probability is based on:

- A: Experiments and results
 - B: Judgments and beliefs
 - C: Theories and proofs
 - D: Possibility of all positive outcomes
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Q9: Which theory takes one's judgments and beliefs into consideration?

- A: Classical probability
 - B: Empirical probability
 - C: Subjective probability
 - D: Axiomatic probability
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Q10: Which theory considers rigorous mathematical theories?

- A: Theoretical probability
 - B: Empirical probability
 - C: Subjective probability
 - D: Axiomatic probability
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Answers

Q1: B - 1

Q2: C - It is always equal to 0.

Q3: C - 1

Q4: D - Theory of Subtraction

Q5: C - Three

Q6: B - The probability of all conceivable outcomes is always equal to one.

Q7: A - Theoretical probability

Q8: A - Experiments and results

Q9: C - Subjective probability

Q10: D - Axiomatic probability