

BINOMIAL DISTRIBUTION

Binomial distribution is a concept that is related to the distribution of probability. It helps to find out the expected value. The importance of this concept in daily activities makes it more worthy for you. Through this page, you will get to know about the meaning of binomial distribution, its real-life applications, and so on. You can check your understanding of binomial distribution through the worksheet that is given at the end.

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Q1: What is the formula for calculating the probability of k successes in a binomial distribution?

- A: $P(k) = nCk * p^k * (1-p)^{(n-k)}$
 - B: $P(k) = nCk * p^{(n-k)} * (1-p)^k$
 - C: $P(k) = nCk * p^k$
 - D: $P(k) = nCk * p^{(n-k)}$
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Q2: What is the mean (expected value) of a binomial distribution?

- A: np
 - B: p/n
 - C: n - p
 - D: p + n
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Q3: In a binomial distribution, what is the maximum possible value for 'k' (number of successes)?

- A: n
 - B: 1
 - C: p
 - D: 0
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Q4: Is binomial distribution concept can be used in practical life?

- A: Yes
 - B: No
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Q5: The n and p are not related to each other?

- A: True
 - B: False
 - C: Partial true
 - D: Not agree
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Q6: What is the meaning of 'n'?

- A: n is the success probability
 - B: n is the rate of observations
 - C: n is the fixed number of observations
 - D: none of the above
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Q7: What is the meaning of 'p'?

- A: 'p' is probability
 - B: 'p' is success probability
 - C: p is the observation probability
 - D: p is a probability distribution
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Q8: What is the standard deviation?

- A: Square of variance
 - B: Square root of variance
 - C: Square of mean
 - D: None of the above
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Q9: What are the general mistakes in binomial distribution that students commit?

- A: Proper use of n and p
 - B: Avoid n and p use
 - C: Confuse n and p-value
 - D: B and C
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Q10: What is true about Binomial distribution?

- A: It is not a distribution of probability
 - B: It is not a new concept
 - C: Only B
 - D: Both A and B
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Answers

Q1: A - $P(k) = nCk * p^k * (1-p)^{(n-k)}$

Q2: A - np

Q3: A - n

Q4: A - Yes

Q5: B - False

Q6: C - n is the fixed number of observations

Q7: B - ' p ' is success probability

Q8: B - Square root of variance

Q9: D - B and C

Q10: C - Only B