

BINOMIAL PROBABILITY FORMULA

A binomial probability is a probability of exactly the 'k' successes on the 'n' repeated trials during an experiment with two possible outcomes. It is a discrete probability distribution that will give the two possible results of an experiment, which will be either a failure or a success.

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Q1: In a binomial experiment, what are the possible outcomes for each trial?

- A: 1
 - B: 2
 - C: 3
 - D: 4
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Q2: What is the formula for calculating binomial probability?

- 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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Q3: What is the mean (expected value) in binomial probability?

- A: np
 - B: p/n
 - C: np
 - D: $p + n$
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Q4: Find the Expected value in Binomial Probability when the number of trials is 100, and the Probability is 1

- A: 10
 - B: 50
 - C: 25
 - D: 100
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Q5: If a Coin is Tossed five times, find the probability of exactly two heads

- A: $2/16$
 - B: $4/16$
 - C: $5/16$
 - D: $7/16$
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Q6: What do we use for Binomial Probability?

- A: Permutation
 - B: Combination
 - C: Geometry
 - D: Functions
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Q7: Find the Expected value in Binomial Probability when the number of trials is 90, and the Probability is 0.5

- A: 45
 - B: 4.5
 - C: 450
 - D: 4500
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Q8: If a Coin is Tossed five times, find the probability of Getting At Most two heads.

- A: $\frac{1}{3}$
 - B: $\frac{2}{3}$
 - C: $\frac{1}{2}$
 - D: $\frac{4}{5}$
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Q9: If a Coin is Tossed ten times, find the probability of getting At Least 6 Heads

- A: 0.40
 - B: 0.79
 - C: 45
 - D: 0.38
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Q10: Find the Expected value in Binomial Probability when the number of trials is 190 and the Probability is $\frac{1}{2}$

- A: 80
 - B: 85
 - C: 8.5
 - D: 190
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Answers

Q1: B - 2

Q2: A - $P(k) = nCk * p^k * (1-p)^{(n-k)}$

Q3: A - np

Q4: D - 100

Q5: C - $5/16$

Q6: B - Combination

Q7: A - 45

Q8: C - $\frac{1}{2}$

Q9: D - 0.38

Q10: B - 85