

MTH-302 Important Mcq's Quiz 5 By Vu Topper RM!!

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Which of the following formula is correct?

=BINOMDIST(7, 4, 0.5, FALSE)
=BINOMDIST(-4, 7, 1.5, FALSE)
=BINOMDIST(4, -7, 1.5, FALSE) (Right Answer)

=BINOMDIST(4, 7, 0.5, FALSE)

Attendance in a factory shows 7 absences. What is probability that on a given day there will be more than 8 people absent?

Select correct option:

0.2709 (Right Answer)

0.184

0.5

None of these.

Formulation for Poisson distribution i-e "POISSON(x,mean,cumulative)" is truncated if 'x' is

Select correct option:

Non-integer (Right Answer)

Integer

Integer but expected numeric value

Integer but non-expected value

In Binomial distribution, the outcome on one trial the outcome on other trials.

Select correct option:

Does not affect (Right Answer)

Does affect

May affect

None of these

The mean of a Poisson distribution is 5 while its standard deviation is 4.then what option is correct about this statement.

Select correct option:

In some cases this result is possible.

Mean should be always less than standard deviation . (Right Answer)

Mean and standard deviation are always equal.
Only option 1 & 3.

In binomial distribution, the experiment is repeated for
Select correct option:

Variable number of times

Fixed number of times (Right Answer)

Many number of times

None of these

Which of the following is NOT applicable to a Poisson Distribution? Select correct option:

It is used to compute the probability of rare events.

Every event is independent of every other event.

The range for the number of events that could occur is 0,1,2,3, ... (Right Answer)

Every event is dependent of every other event.

The successive binomial trials are assumed to be
Select correct option:

Independent (Right Answer)

Dependent

May be independent

None of these

Probability distribution is a set of possible values that a random variable can assume and their associated probabilities of occurrence.

Select correct option:

True (Right Answer)

False

In negative binomial distribution, the probability of success, p Select correct option:

Remains the same on every trial

Remains constant for different outcomes

Change on every trial (Right Answer)

None of these

The sum of all probabilities for any poisson density function is always ____ . Select correct option:

0

1 (Right Answer)

2

None of these.

The number of telephone calls that pass through a switchboard has a Poisson distribution with mean equal to 2 per minute. The probability that no telephone calls pass through the switch board in two consecutive minutes is:

Select correct option:

0.2707

0.0517

0.0183 (Right Answer)

0.1353

If the mean & standard deviation on an examination are '74' & '12' respectively and the grades ' $x=74$ ' then the scores (z) in standard units of students receiving are

Select correct option:

0.8378

-0.8378

1 (Right Answer)

0

A pair of fair die is rolled. What will be the probability of "Sum of dots on upper sides is odd number?"

Select correct option:

18/36 (Right Answer)

15/36

10/36

None of these

In binomial distribution, the experiment is repeated for

Select correct option:

Variable number of times

Fixed number of times (Right Answer)

Many number of times

None of these

The probability of "success" p is equals to

Select correct option:

q

1-q (Right Answer)

1+q

None of these

The successive negative binomial trials are assumed to be Select correct option:

Independent (Right Answer)

Dependent

May be independent

None of these

Probability of occurrence of an event A = ----- (Where X=Number of outcomes favorable to event A and n=total number of outcomes)

Select correct option:

nX

n/X

X/n (Right Answer)

None of these

Which of the following formula is correct?

Select correct option:

=BINOMDIST(7, 4, 0.5, FALSE)

=BINOMDIST(-4, 7, 1.5, FALSE)

=BINOMDIST(4, -7, 1.5, FALSE) (Right Answer)

=BINOMDIST(4, 7, 0.5, FALSE)

The Excel command “=BINOMDIST(4, 10, 2, FALSE)” gives an error of #NUM. The reason is that the probability of successes is 2 which is wrong. The probability of successes cannot be greater than 1.

Select correct option:

True (Right Answer)

False

Probability of occurrence of an event A = ----- (Where X=Number of outcomes favorable to event A and n=total number of outcomes)

Select correct option:

nX

n/X

X/n (Right Answer)

None of these

What is probability of r or more successes when $m=7$; $r=9$ Select correct option:

0.2709 (Right Answer)

0.184

0.5

None of these

The probability of successes can be less than 0 or greater than 1. Select correct option:

True

False (Right Answer)

In Binomial distribution, the outcome on one trial the outcome on other trials.

Select correct option:

Does not affect (Right Answer)

Does affect

May affect

None of these

This formula “=BINOMDIST(3, 6, 0.5, TRUE)” is for Cumulative Binomial distribution.

Select correct option:

True (Right Answer)

False

Which of the following can be best fit for the prediction of the vehicles arriving at their destination in 2 hours?

Select correct option:

Binomial Distribution (Right Answer)

Normal Distribution

Poisson Distribution

Chi-Square Distribution

Suppose, you have a bag in which there are one green and one red ball. You take out a ball repeatedly and put it back into the bag, and you count the number of times the green ball comes out. You continue to take out the ball until the green ball comes out 3 times. This experiment shows the case of Negative

Binomial Distribution. Select correct option:

True

False (Right Answer)

The Excel command CRITBINOM(trials,p,alpha) where n is the number of trials, p is the probability of success in trials, and alpha is the criterion value. If trials < 0 , then CRITBINOM returns #NUM! error.

Select correct option:

True

Flase (Right Answer)

In the excel formulation for Poisson distribution i-e

"POISSON(x,mean,cumulative)", if X<0 then it returns to Select correct option:

TRUE (Right Answer)

FALSE

#VALUE!

#NUM!

Probability of sure event is -----

Select correct option:

0

1

-1

None of these (Right Answer)

In binomial distribution, each observation represents

Select correct option:

One of two outcomes ("success" or "failure")(Right Answer)

Only one outcome ("success")

Only one outcome ("failure")

None of these

A pair of fair die is rolled. What will be the probability of "Sum of dots on upper sides is odd number?"

Select correct option:

18/36 Right Answer

15/36

10/36

None of these

The Excel command CRITBINOM(trials,p,alpha) where n is the number of trials, p

is the probability of success in trials, and alpha is the criterion value. If trials < 0 ,
then CRITBINOM returns #NUM! error.

Select correct option:

True Right Answer)

False

Suppose, you have a bag in which there are one green and one red ball. You take out a ball repeatedly and put it back into the bag, and you count the number of times the green ball comes out. You continue to take out the ball until the green ball comes out 3 times. This experiment shows the case of Negative Binomial Distribution. Select correct option:

True

False Right Answer)

A fair die is rolled. What will be the probability of even numbers?

Select correct option:

1/6

2/6

3/6 Right Answer)

None of these

Question # 9 of 10 (Start time: 07:08:31 PM) Total Marks: 1

An automatic production line breaks down every 2 hours.Special production requires uninterrupted operation for 8 hours.What is the probabily that this can be achieved.

Select correct option:

0.312

0.021

0.0183 Right Answer)

None of these.

Question # 10 of 10 (Start time: 07:10:01 PM) Total Marks: 1

Significant birth defects occur at a rate of about 4 per 1000 births in human populations. Which type of distribution can better deal with the above mentioned case?

Select correct option:

Binomial Distribution. Right Answer)

Normal Distribution.

Poisson Distribution.

None of the above.

In binomial distribution, the experiment is repeated for

Select correct option:

Variable number of times

Fixed number of times Right Answer)

Many number of times

None of these

Which of the following can be best fit for the prediction of the vehicles arriving at their destination in 2 hours?

Select correct option:

Binomial Distribution Right Answer)

Normal Distribution

Poisson Distribution

Chi-Square Distribution

The successive negative binomial trials are assumed to be

Independent Right Answer)

Dependent

May be independent

None of these

In the excel formulation for Poisson distribution i-e

"POISSON(x,mean,cumulative)", if $X < 0$ then it returns to

Select correct option:

TRUE

FALSE

#VALUE!

#NUM! Right Answer)

Formulation for Poisson distribution i-e "POISSON(x,mean,cumulative)" is

truncated if 'x' is

Select correct option:

Non-integer Right Answer)

Integer

Integer but expected numeric value

Integer but non-expected value

A lottery has Rs.100 payout on average 20 turns.What will be expected win per turn.

Select correct option:

Rs.5 Right Answer)

Rs. -5

Rs.3

None of these.

If the mean & standard deviation on an examination are '74' & '12' respectively and the grades 'x=74' then the scores (z) in standard units of students receiving are

0.8378

-0.8378

1 Right Answer)

0

What is not a characteristic of poisson distribution.

Select correct option:

Either/or situation.

mean number of successes per unit,m,known and fixed.

p,chance unknown and large Right Answer)

None of these

An automatic packing machine produces on an average one in 100 underweight bags. What is the probability that 500 bags contain less than three underweight bags?

Select correct option:

0.018

0.1247 Right Answer)

0.312

None of these.

During a typical football game, a coach can expect 3.2 injuries. Find the probability that the team will have at most 1 injury in this game. We are interested in

Select correct option:

$P(X=1)$ Right Answer

$P(X < 1)$

$P(X=1)$

$P(X=0) + P(X=1)$

The probability of "success" p is equals to

Select correct option:

q

$1-q$ Right Answer

$1+q$

None of these

Which of the following can be best fit for the prediction of the vehicles arriving at their destination in 2 hours?

Select correct option:

Binomial Distribution Right Answer

Normal Distribution

Poisson Distribution

Chi-Square Distribution

Probability of occurrence of an event $A = \frac{X}{n}$ (Where X =Number of outcomes favorable to event A and n =total number of outcomes)

Select correct option:

nX

n/X

X/n Right Answer)

None of these

If the mean & standard deviation on an examination are '74' & '12' respectively and the standard scores is 'z= -1' then the grade 'x' is Select correct option:

-62

889

887 Right Answer)

62

In Binomial distribution, the outcome on one trial the outcome on other trials.

Select correct option:

Does not affect Right Answer)

Does affect

May affect

None of these

The marketing manager of a company receives average 10 complaint calls during a week. Suppose that the number of calls during a week follows the Poisson distribution. The probability that she gets five such calls in one day is:

Select correct option:

$(10^5 e^{-10})/5!$ Right Answer)

$1 - (10^5 e^{-10})/5!$

$10C5 * 0.55 * 0.55$

$$1 - 10C5 * 0.55 * 0.55$$

Poisson probability density function has ___ parameter(s)

Select correct option:

0

1

2 Right Answer)

None of these.

The Excel command “=BINOMDIST(4, 10, 2, FALSE)” gives an error of #NUM. The reason is that the probability of successes is 2 which is wrong. The probability of successes cannot be greater than 1.

Select correct option:

True Right Answer)

False

In binomial distribution, each observation represents

Select correct option:

One of two outcomes ("success" or "failure") Right Answer)

Only one outcome ("success")

Only one outcome ("failure")

None of these

Poisson probability density function has ___ parameter(s)

Select correct option:

0

1

2 Right Answer)

None of these.

The Excel command CRITBINOM(trials,p,alpha) where n is the number of trials, p is the probability of success in trials, and alpha is the criterion value. If trials < 0 , then CRITBINOM returns #NUM! error.

Select correct option:

True Right Answer)

False

In the normal distribution curve, peak of the bell-shaped curve gives

Select correct option:

Standard deviation Right Answer)

Variance

Mean

Frequency

12% of the electric bulbs manufactured by a company are defective. What is the probability that a bulb selected will not be defective?

Select correct option:

90%

88% Right Answer)

80%

85%

A lottery has Rs.100 payout on average 20 turns.What will be expected win per turn.

Select correct option:

Rs.5 Right Answer)

Rs. -5

Rs.3

None of these.

In the excel formulation for Poisson distribution i-e "POISSON(x,mean,cumulative)", 'x' is the

Select correct option:

Expected numeric value

Logical value that determines the form of the probability distribution returned

Number of events over a specific time Right Answer)

Discrete non-random variable

Suppose, you have a bag in which there are one green and one red ball. You take out a ball repeatedly and put it back into the bag, and you count the number of times the green ball comes out. You continue to take out the ball until the green ball comes out 3 times. This experiment shows the case of Negative Binomial Distribution. Select correct option:

True

False Right Answer)

What is the probability of at least one head in the experiment of tossing a coin three times?

Select correct option:

1/7

7/8 Right Answer)

1/8

8/7

The probability of successes can be less than 0 or greater than 1.

Select correct option:

True Right Answer)

False

Probability distribution is a set of possible values that a random variable can assume and their associated probabilities of occurrence. Select correct option:

True Right Answer)

False

In standard normal distribution;

Select correct option:

Mean = 1, Standard Deviation = 0

Mean = 0, Standard Deviation = 1

Mean = 1, Standard Deviation = 1 Right Answer)

Mean = 0, Standard Deviation = 0

For normal distribution the probability of an event is zero if and only if value of 'z'

Select correct option:

Greater than 3

Less than 3

Equal to 3 Right Answer)

None of these

For mutually exclusive events A and B

Select correct option:

Probability of A intersection B > 0

Probability of A intersection B < 0

Probability of A intersection B = 0 Right Answer)

None of these

Which of the following formula is correct?

Select correct option:

=BINOMDIST(7, 4, 0.5, FALSE)

=BINOMDIST(-4, 7, 1.5, FALSE)

=BINOMDIST(4, -7, 1.5, FALSE) Right Answer)

=BINOMDIST(4, 7, 0.5, FALSE)

Probability of sure event is -----

Select correct option:

0

1

15

-1

None of these Right Answer)

In the excel formulation for Poisson distribution i-e

"POISSON(x,mean,cumulative)", 'x' is the

Select correct option:

Expected numeric value

Logical value that determines the form of the probability distribution returned

Number of events over a specific time Right Answer)

Discrete non-random variable

The probability of successes can be less than 0 or greater than 1.

Select correct option:

True

False Right Answer)

A pair of fair die is rolled. What will be the probability of "Sum of dots on upper sides is odd number?"

Select correct option:

18/36 Right Answer)

15/36

10/36

None of these

An automatic production line breaks down every 2 hours. Special production requires uninterrupted operation for 8 hours. What is the probability that this can be achieved.

Select correct option:

0.312

0.021

0.0183 Right Answer)

None of these.

Which of the following formula is correct?

Select correct option:

=BINOMDIST(7, 4, 0.5, FALSE)

=BINOMDIST(-4, 7, 1.5, FALSE)

=BINOMDIST(4, -7, 1.5, FALSE) Right Answer)

=BINOMDIST(4, 7, 0.5, FALSE)

The successive binomial trials are assumed to be

Select correct option:

Independent Right Answer)

Dependent

May be independent

None of these

For the Poisson distribution,

Select correct option:

$E(X) = \mu$, $\text{Var}(X) = \mu$

$E(X) = \mu$, $\text{Var}(X) = -\mu$

$E(X) = -\mu$, $\text{Var}(X) = \mu$ Right Answer)

$E(X) = 0$, $\text{Var}(X) = 0$

Probability distribution is a set of possible values that a random variable can assume and their associated probabilities of occurrence.

Select correct option:

True Right Answer)

False

The marketing manager of a company receives average 10 complaint calls during a week. Suppose that the number of calls during a week follows the Poisson distribution. The probability that she gets five such calls in one day is:

Select correct option:

$(10^5 e^{-10})/5!$ Right Answer)

$1 - (10^5 e^{-10})/5!$

$10C5 * 0.55 * 0.55$

$1 - 10C5 * 0.55 * 0.55$

During a typical football game, a coach can expect 3.2 injuries. Find the probability that the team will have at most 1 injury in this game. We are interested in

Select correct option:

$P(X=1)$ Right Answer)

$P(X < 1)$

$P(X = 1)$

$P(X = 0) + P(X = 1)$

For mutually exclusive events

Select correct option:

$P(A \cup B) = P(A)P(B)$

$P(A \cup B) = P(A)/P(B)$

P(AUB)=P(A)-P(B) Right Answer)

P(AUB)=P(A)+P(B)

In binomial distribution, the probability of "success" p

Select correct option:

Vary for each outcome Right Answer)

Remains constant for different outcomes

Remains the same for each outcome

None of these

In the excel formulation for Poisson distribution i-e "POISSON(x,mean,cumulative)", if X<0 then it returns to Select correct option:

TRUE

FALSE

#VALUE!

#NUM! Right Answer)

A fair die is rolled. What will be the probability of even numbers?

Select correct option:

1/6

2/6

3/6 Right Answer)

None of these

If the mean & standard deviation on an examination are '74' & '12' respectively and the standard scores is 'z= -1' then the grade 'x' is Select correct option:

-62

889 Right Answer)

887

62

What is not a characteristic of poisson distribution.

Select correct option:

18

Either/or situation.

mean number of successes per unit,m,known and fixed.

p,chance unknown and large Right Answer)

None of these.

Which of the following is applicable to a Poisson Distribution?

Select correct option:

It is used to compute the probability of rare events.

Every event is independent of every other event.

The range for the number of events that could occur is 0,1,2,3, ...

all of given choices. Right Answer)

The successive binomial trials are assumed to be

Select correct option:

Independent Right Answer)

Dependent

May be independent

None of these

Which of the following can be best fit for the prediction of the vehicles arriving at their destination in 2 hours?

Select correct option:

Binomial Distribution Right Answer)

Normal Distribution

Poisson Distribution

Chi-Square Distribution

What is the range of probability of any event?

Select correct option:

-1 to 0

-1 to 1

0 to 1 Right Answer)

None of these

A lottery has Rs.100 payout on average 20 turns.What will be expected win per turn.

Select correct option:

Rs.5 Right Answer)

Rs. -5

Rs.3

None of these.

19

The marketing manager of a company receives average 10 complaint calls during a week. Suppose that the number of calls during a week follows the Poisson distribution. The probability that she gets five such calls in one day is:

Select correct option:

$(10^5 e^{-10})/5!$ Right Answer)

$1 - (10^5 e^{-10})/5!$

$10C5 * 0.55 * 0.55$

$1 - 10C5 * 0.55 * 0.55$

A coin is tossed twice. What is the probability of getting head on first toss and tail on second toss?

Select correct option:

$\frac{1}{2}$ Right Answer)

$\frac{1}{3}$

$\frac{1}{4}$

None of these

A lottery has Rs.100 payout on average 20 turns. What will be expected win per turn.

Select correct option:

Rs.5 Right Answer)

Rs. -5

Rs.3

None of these.

20/100=5

In binomial distribution, each observation represents

Select correct option:

One of two outcomes ("success" or "failure") Right Answer

Only one outcome ("success")

Only one outcome ("failure")

None of these

An automatic packing machine produces on an average one in 100 underweight bags. What is the probability that 500 bags contain less than three underweight bags?

Select correct option:

0.018

0.1247 Right Answer

0.312

None of these

The correct formula for OR rule is

Select correct option:

$P(A \text{ or } B) = P(A) P(B)$

$P(A \text{ or } B) = P(A) - P(B)$

$P(A \text{ or } B) = P(A) + P(B)$ Right Answer

None of these

In Binomial distribution, the outcome on one trial the outcome on other

trials.

Select correct option:

Does not affect Right Answer)

Does affect

May affect

None of these

In the excel formulation for Poisson distribution i-e

"POISSON(x,mean,cumulative)", 'x' is the

Select correct option:

Expected numeric value

Logical value that determines the form of the probability distribution returned

Number of events over a specific time Right Answer)

Discrete non-random variable

The successive binomial trials are assumed to be

Select correct option:

Independent Right Answer)

Dependent

May be independent

None of these

Probability distribution is a set of possible values that a random variable can assume and their associated probabilities of occurrence.

Select correct option:

True Right Answer)

False

The Excel command “=BINOMDIST(4, 10, 2, FALSE)” gives an error of #NUM. The reason is that the probability of successes is 2 which is wrong. The probability of successes cannot be greater than 1.

Select correct option:

True Right Answer)

False

The correct formula for AND rule is

Select correct option:

P(A and B)= P(A) P(B) Right Answer)

P(A and B)= P(A)-P(B)

P(A and B)= P(A) + P(B)

None of these