

idle

NetExam

Sri Lanka Institute of Information Technology

Question 1
1 answered
1 out of
1 question

Suppose in a town three candidates are running for the mayor's seat. To predict the winning candidate, a newspaper selects 25 registered voters randomly and the following info about each respondents' choice.

CCABCCBCBABCABAACCACBABC

Choose the correct statement.

Select one:

- Population size is 25
- Sample size is not given
- Population is all registered voters in the town at the time of the study.
- Cannot identify a variable from the description
- None of the above

Next

Question 1
Not yet answered
Marked out of 3.00
 Flag question

Assuming that the weekly demand for a video recorder is a poisson variable with mean 3, find the probability that the shop sells

at least 3 in a week.

Choose... ▾

- Choose...
- 0.57681
- 0.9881
- 0.03351
- 0.08392
- 0.0116

at most 7 in a week.

more than 20 in a month.

[Next page](#)

Finish
Time le
QUEST
1
9
17
1
FEEDBA
21



Question 1
Not answered
Marked out of
Flag question

The number of industrial injuries per working week in a particular factory is known to follow a Poisson distribution with mean 0.5. Find the probability that,

in particular week there will be less than 2 accidents.

Choose... ▾

in particular week there will be more than 5 accidents.

Choose... ▾

in a 3 week period there will be no accidents.

Choose...
0.54476
0.9098
0.77687
0.22313
0.00001

Next page

X

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$E(X)$ and $E(X^2)$ of a discrete random variable are -1.4 & 2 respectively. What is $V[X]$?

Select one:

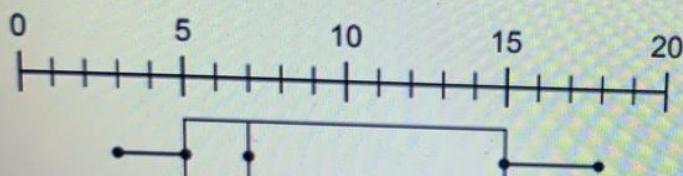
- 0.4
- 0.4
- 1.4
- 0.04
- None of the above



1
answered
out of
question

According to the box-and-whisker plot, what is the maximum number of hot dogs eaten in the hot dog eating contest?

Hot Dogs Eaten by Contestants



Select one:

- 15
- 3
- 7
- 18
- 20



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The statistic NOT required for a box plot is.

Select one:

- Mean
- 1st quartile
- Median
- 3rd quartile
- None of the above

Next p



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Question 3

Not yet answered

Marked out of
3.00

Flag question

Consider a computer system with Poisson job-arrival stream at an average of 2 per minute. Determine the probability that in any one-minute interval there will be

0 jobs

Choose... ▾

Choose...

0.32332

0.27067

0.13534

0.59399

0.86466

exactly 2 jobs

at least 3 arrivals

[Next page](#)



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t of
estion

A machine produces parts that are either good (90%), slightly defective (2%), or obviously defective (8%). Produced parts get passed through an automatic inspection machine, which is able to detect any part that is obviously defective and discard it. The machine passes the part if it is not obviously defective. If it makes through the inspection machine and get shipped, what is the probability that it is a good quality part?

Select one:

- 0.9
- 0.978
- 0.742
- 0.685
- None of the above

Next page



Let E be an event and E' is its complement. If $P(E) = 1/3$, what is $P(E')$?

Select one:

- $P(E') = P(E) = 1/3$
- $P(E') = P(E) - 1 = -2/3$
- $P(E') = 2 * P(E) = 2/3$
- $P(E') = 1 - P(E) = 2/3$
- None of the above

Which of the following would fit the definition of "statistical independence" of events A and B?

Select one:

- $P(A \mid B) = P(A) + P(B)$
- $P(A \mid B) = P(A \text{ and } B)/P(B)$
- $P(A \mid B) = P(B)$
- $P(A \text{ and } B) = P(A)$
- None of the above

[Next page](#)

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What are the outliers for the given data set below.

7, 23, 26, 27, 28, 30, 31, 34, 34

Select one:

1,3
 31, 33
 30, 31
 1, 33
 No outliers

Next

Find $E(X)$ for the random variable X with table:

values of X: 1 3 5

$P(X=x)$: $1/6$ $1/6$ $2/3$

Select one:

- 4
- 1
- 10
- 8
- None of the above



The probability of a machine producing a defective part is 0.04.

What is the probability of having exactly 5 defective parts, if it is selected from a sample of 100? (Round your answer upto 5 decimal places)

What is the rate of the occurrence in this distribution?

What is the variance of this distribution?

Choose... ▾

Choose...

0.36926

0.15629

0.47116

3.84

4

Next page



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Question 1

Not yet answered

Marked out of
1.00

Flag question

Let A and B be events with $P(A^c) = 1/2$, $P(A \cup B) = 3/4$, $P(A|B) = 1/3$ and $P(B^c) = 5/8$ where A^c is the complement of A. Then $P(A^c \cap B^c)$ is:

Select one:

- 1/8
- 3/8
- 6/8
- 7/8
- None of the above

[Next page](#)

To be an outlier for the following data set, data points should lie between,

18 44 47 55 61 62 78 79 83 145

Hint: Outlier is defined as a value x , holding the following conditions.

$x > Q3 + 1.5 * (\text{Inter Quartile Range})$

$x < Q1 - 1.5 * (\text{Inter Quartile Range})$

Lower bound

Upper bound

Next page



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estion

A coin is tossed and a single 6-sided die is rolled. What is the probability of landing on the head side of the coin and rolling a 3 on the die?

Select one:

- 1/3
- 1/6
- 1/2
- 1/12
- None of the above



Next page



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Question 1

Not yet answered

Marked out of
3.00

Flag question

Assuming that the weekly demand for a video recorder is a poisson variable with mean 3, find the probability that the shop sells

at least 3 in a week.

at most 7 in a week.

more than 20 in a month.

Choose...

Choose...

0.57681

0.08392

0.0116

0.9881

0.03351

[Next page](#)



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5
Answered
out of
question.

The probability that a patient recovers from a heart operation is 0.9. What is the probability that at least 2 of the next three patients who have this operation recover? (Don't use any approximation)

Select one:

- 0.8960
- 0.9720
- 0.7890
- 0.5960
- None of the above

[Next page](#)



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Which of the following is **not** required for a binomial distribution?

Select one:

- Independent trials
- Constant probability of success
- At least fifty observations
- Fixed trials
- Only two outcomes



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Which of the following can be a probability function?

Select one:

- P(X)=1/2 for x=1,2,3
- P(X)=x/5 for x=1,2,3,4
- P(X)=x/2 for x=0,1,2
- P(X)=1/5 for x=0,2,3
- None of the above

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Determine the value of k so that the function $P(X=x) = kx$ for $x=1,2,3,4,5,6$ can serve as a probability distribution for discrete random variable X.

Select one:

- 3/21
- 5/21
- 1/6
- 2/21
- None of the above



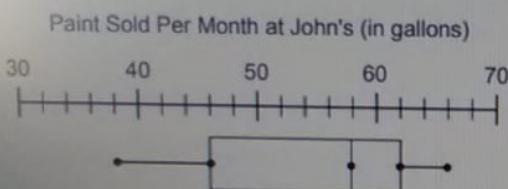
Question 4

Not yet answered

Marked out of
1.00

 Flag question

According to the box-and-whisker plot, what is the third quartile of gallons of paint sold at John's Hardware Store in a month?



Select one:

- 66
- 61
- 60
- 62
- 58

Question 3

Not yet answered

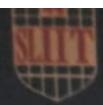
Marked out of
1.00 Flag question

A medical treatment has a success rate of 0.8. Two patients will be treated with this treatment. Assuming the results are independent for the two patients, what is the probability that neither one of them will be successfully cured?

Select one:

- 0.5
- 0.36
- 0.2
- 0.04
- None of the above

[Next page](#)



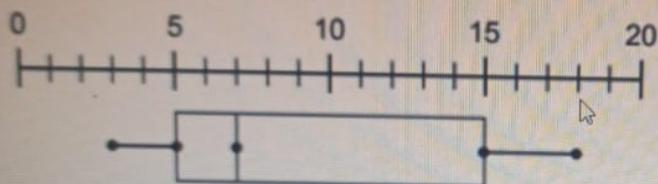
NetExam

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6
not answered
out of
question

According to the box-and-whisker plot, what is the maximum number of hot dogs eaten in the hot dog eating contest?

Hot Dogs Eaten by Contestants



Select one:

- 20
- 18
- 7
- 3
- 15



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A and B are two events. $P(A \text{ and } B)'$ is equal to;

Select one:

- $P(A' \text{ or } B)$
- $P(A \text{ and } B')$
- $P(A' \text{ and } B')$
- $P(A' \text{ or } B')$
- None of the above.



**Question 4**

Not yet answered

Marked out of
1.00

A small blue square icon with a white downward-pointing triangle and a horizontal line through it, used to flag a question.

The best sample is one that is,

Select one:

- A systematic sample
- Representative of the population
- Convenient
- judgmentally selected
- Non-random sample





Question 1

yet answered

Marked out of

0

Flag question

The below transformation is applied to a data set

$$Y = 3X + 4$$

Where X is old data and Y is New data. If the variance of the old

Select one:

- 49
- 5
- 9
- 45
- None of the above

← → X | ① | ② | ③ | ④

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Question 6
Not yet answered
Marked out of 2.00
Flag question

When Joe bowls, he can get a strike (knock down all of the pins) 60% of the time. Assuming that all trials are independent and identical what is the probability for him to bowl zero strikes out of four tries?

Select one:

- 512/10000
- 256/1000
- 256/10000
- 128/10000
- None of the above

Next page

The class midpoint is

Select one:

- The center of the class
- The lower limit of the class
- The upper limit of the class
- The width of the class
- The number of observations in a class



The below transformation is applied to a data set.

$Y = 2X + 3$, where X is the old data and Y is the new data.

If the variance of the first data set is 7 then what is the variance of the new data set.

Select one:

- 24
- 28
- 14
- 7
- None of the above

This stem and leaf plot shows the number of cookies that Tia's Girl Scout troop sold each week. How many weeks did they sell cookies?

Stem	Leaf
5	1 1 4
6	4 5 6
7	2 2
8	3 6 7 7

Select one:

- 4
- 87
- 12
- 51
- The Stem and leaf plot do not say.

Next page

Time left			
QUESTIONS			
1	2	3	4
9	10	11	12
17	18	19	20
FEEDBACK			
21			



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What are the outliers for the given data set below. It found that $Q_1 = 24.5$, $Q_2 = 28$ and $Q_3 = 32.5$ for the data set.

7, 23, 26, 27, 28, 30, 31, 34, 34

Select one:

- 23
- 7
- 34
- 26
- No outliers

Next





A study is under way in to determine the adult height of American pine trees. Specifically, the study is attempting to determine what factors aid a tree in reaching heights greater than 60 feet tall. It is estimated that the forest contains 25,000 adult American pines. The study involves collecting heights from 250 randomly selected adult American pine trees and analyzing the results. Identify the sample in the study.

Select one:

- The 250 randomly selected adult American pine trees.
- The 25,000 adult American pine trees in the forest.
- All the adult American pine trees taller than 60 feet.
- All American pine trees, of any age, in the forest.
- None of the above.

[Next page](#)

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out of
question

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The probability that a patient recovers from a heart operation is 0.9. What is the probability that at least 2 of the next three patients who have this operation recover? (Don't use any approximation)

Select one:

- 0.8960
- 0.9720
- 0.7890
- 0.5960
- None of the above

Next page

☰ Quiz navigation

Finish attempt ...

Time left 0:49:01

QUESTIONS

1	2	3	4	5
9	10	11	12	13
17	18	19	20	
FEEDBACK				
21				



Answered
part of
question

The type of sampling in which each member of the population selected for the sample is returned to the population before the next member is selected is called,

Select one:

- Sampling without replacement
- Sampling with replacement
- Simple random sampling
- Systematic sampling
- None of the above

Next page



Question 2

Not yet answered

Marked out of
2.00

Flag question

Which of the following is **not** required for a binomial distribution?

Select one:

- Independent trials
- At least fifty observations
- Fixed trials
- Only two outcomes
- Constant probability of success

Next p



on 7
et answered
d out of
g question

This stem and leaf plot shows the scores of students for a test given out of 100. How many students scored more than 75 marks?

Stem	Leaf
5	2, 6, 6, 8
6	0, 1, 4, 9
7	1, 1, 2, 4, 6, 6, 7
8	0, 0, 3, 4, 5, 5, 7, 8, 9
9	0, 1, 1, 2, 6, 9

Select one:

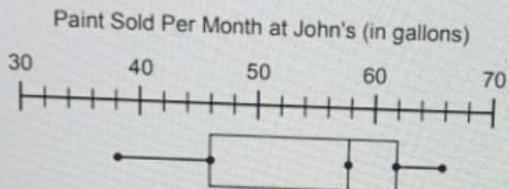
- 12
- 2
- 6
- 18
- 8

Question 4

Not yet answered
Marked out of
1.00

 Flag question

According to the box-and-whisker plot, what is the third quartile of gallons of paint sold at John's Hardware Store in a month?



Select one:

- 60
- 61
- 66
- 62
- 58

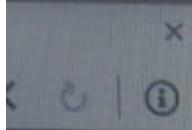


What are the outliers for the given data set below.

7, 23, 26, 27, 28, 30, 31, 34, 34

Select one:

- 1,3
- 31, 33
- 30, 31
- 1, 33
- No outliers



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on

A numerical value used as a summary measure for a sample, such as sample mean, is known as a,

Select one:

- Population parameter
- Sample parameter
- Sample statistic
- Population mean
- None of the above



**Question 10**

Not yet answered

Marked out of
1.00[Flag question](#)

Suppose in a town three candidates are running for the mayor's seat. To predict the winning candidate, a newspaper selects 25 registered voters randomly and the following info about each respondents' choice.

CC A B C C B C B B A B C A B A A C C A B A B C C

Choose the correct statement.

Select one:

- Population size is 25
- Sample size is not given
- Population is all registered voters in the town at the time of the study.
- Cannot identify a variable from the description
- None of the above

Quiz navigation[Finish attempt ...](#)

Time left 0:34:39

QUESTIONS

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	

FEEDBACK

21

[Next page](#)



Question 9

Not yet answered

Marked out of
1.00

Flag question

The tallest bar in a histogram represents?

Select one:

- The class with the highest cumulative frequency
- The class with the lowest relative frequency
- The class with the highest frequency
- The class with the lowest frequency
- None of the above



A person is looking at a laptop screen displaying a NetExam question from Sri Lanka Institute of Information Technology. The question is about the probability of exactly two out of three children having a gene for disease X. The correct answer, 9/64, is selected. A 'Next page' button is visible at the bottom right.

Module 1

Section 6

Question 6

yet answered

Marked out of

Flag question

NetExam

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After studying a couple's family history, a doctor determines that the probability of any child born to this couple having a gene for disease X is 1 out of 4. If the couple has three children, what is the probability that exactly two of the children have the gene for disease X?

Select one:

- 9/64
- 10/64
- 12/64
- 7/64
- None of the above

Next page





A garment factory produces large lots of a certain type of garments. What is the mean of the number of defective units found in a sample of 10 units if the lot is 2% defective?

Select one:

- 5
- 2
- 0.2
- 0.98
- None of the above

Next

e X



NetExam

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Answered
of
Question

When each member of a population has an equally likely chance of being selected, this is called:

Select one:

- A nonrandom sampling method.
- A quota sample.
- A judgement sampling
- A simple random sample.
- None of the above.

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12
@ # \$ % ^ & * ()
3 4 5 6 7 8 9 0
W E R T Y U I O

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Let E be an event and E' is its complement. If $P(E) = 1/3$, what is $P(E')$?

Select one:

- $P(E') = P(E) = 1/3$
- $P(E') = P(E) - 1 = -2/3$
- $P(E') = 2 * P(E) = 2/3$
- $P(E') = 1 - P(E) = 2/3$
- None of the above





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Roll a fair die twice. Let X be the random variable that gives the absolute value of the differences between the two numbers.

$$X = | \text{value of roll 1} - \text{value of roll 2} |$$

Then what is the $P(X=1)$?

Select one:

- 1/6
- 10/36
- 8/36
- 9/36
- 2/36

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x

NetExam

Sri Lanka Institute of Information Technology

7
answered
out of
question

In an experiment of rolling two dice, the first die shows a ONE and the other die rolls under the table and you cannot see it. Now, what is the probability that both die show ONE?

Select one:

1/3

1/6

1/36

9/36

None of the above

Next page



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The class midpoint is

Select one:

- The center of the class
- The width of the class
- The upper limit of the class
- The number of observations in a class
- The lower limit of the class

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Question 4

Not yet answered

Marked out of 1.00

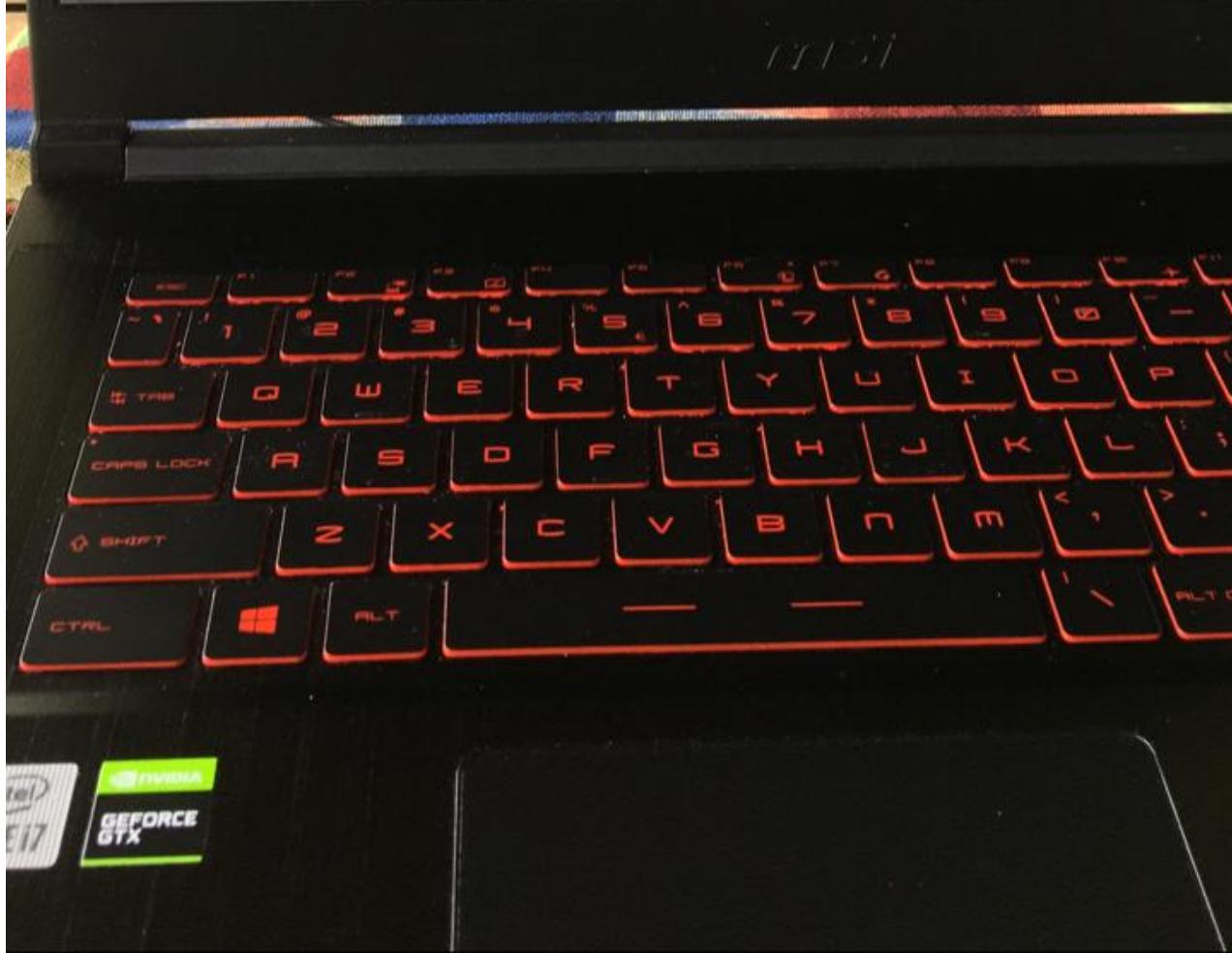
Flag question

Most analysts focus on the cost of tuition as the way to measure the cost of a college education. But incidentals, such as textbook costs, are rarely considered. A researcher at Drummond University wishes to estimate the textbook costs of first-year students at Drummond. To do so, she monitored the textbook cost of 250 first-year students and found that their average textbook cost was \$300 per semester. Identify the sample in the study.

Select one:

- All Drummond University students.
- All college students.
- All first-year Drummond University students.
- All first-year college students.
- None of the above.

Next page





A and B are two events. $P(A \text{ and } B)'$ is equal to;

Select one:

- $P(A' \text{ or } B)$
- $P(A \text{ and } B')$
- $P(A' \text{ and } B')$
- $P(A' \text{ or } B')$
- None of the above.



Quiz navigation

Finish attempt ...

Time left 1:02:35

QUESTIONS

1	2	3	4
9	10	11	12
17	18	19	20
21			

Next page

FEEDBACK

21



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Question 2

Not yet answered
Marked out of
1.00

Flag question

Which of the following is not a form of non-probability sampling?

Select one:

- Quota sampling.
- Convenience sampling.
- Cluster sampling.
- Purposive/Judgement sampling.
- They are all forms of non-probability sampling.

Question 1

Not yet answered

Marked out of
1.00

Flag question

The conditional probability of x given y is:

Select one:

- the probability that x and y occur jointly
- the probability that y occurs if x has already occurred
- the probability that x occurs if y has already occurred
- the marginal probability of x minus the marginal probability of y
- None of the above

Next page



NetExam

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Sampling in which a sampling unit can be repeated more than once is called,

Select one:

- Sampling without replacement
- Simple sampling
- Sampling with replacement
- Repeated sampling
- None of the above



Consider the following probability function

$P(X=x)=cx^2$; $x=3,4,5$, where c is positive constant. Find c.

Select one:



- 0.2
- 0.2
- 0.02
- 2
- None of the above



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Your neighbor has 2 children. You learn that he has a son, Joe. What is the probability that Joe's sibling is a brother? (Assume that boys and girls are equally likely).

Select one:

- 1/4
- 1/5
- 1/3
- 1/2
- None of the above



SLIIT

Sri Lanka Institute of Information Technology

X	-10	-20	30
P(X)	1/5	3/10	1/2

Let X be a random variable with the probability distribution given above. The mean of $g(X) = 2X$ is:

Select one:

- 1
- 7
- 14
- 1
- None of the above

Consider the following discrete probability distribution for the random variable X .

X	0	1	2
$P(X=x)$	a	b	0.4

If the mean of X is 1 then,

Select one:

- $a=0.3$ and $b=0.1$
- $a=0.2$ and $b=0.4$
- $a=0.4$ and $b=0.2$
- $a=0.2$ and $b=0.2$
- $a=0.1$ and $b=0.5$



Question 3

Not yet answered

Marked out of 1.00

[Flag question](#)

A medical treatment has a success rate of 0.8. Two patients will be treated with this treatment. What is the probability that neither one of them will be successfully treated?

Select one:

- 0.5
- 0.36
- 0.2
- 0.04
- None of the above 

If the number of arrivals in a queue is 10 per hour on average, determine the probability that, in any hour there will be

0 arrivals

Choose... 

6 arrivals

Choose... 

more than 6 arrivals

Choose... 

Quiz n

Finish attempt

Time left 0:27:52

QUESTIONS

1 2 3

9 10 11

17 18 19

Next page

FEEDBACK

21



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Select one:

- population parameter
- sample statistic
- population variance
- sample variance
- None of the above



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Question 5

Not yet answered

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3.00

Flag question

In a district, the probability of having a power cut in a house will be 0.003.

What is the probability that 10 houses having the power cut, out of 1000 houses in this district? (Give your answer up to 5 decimal places)

What is the variance of this distribution?

What is the rate of the occurrence in this distribution?

- Choose...
- Choose...
- 0.20018
- 0.00081
- 4.5
- 3
- 0.61110

Next page

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Finish a

Time le

QUESTI

1

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17 1

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21

**Question 12**

Not yet answered

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2.00

Flag question

Consider the following discrete probability distribution for the random variable X .

X	1	2	3	4	5
$P(X=x)$	p	$2p$	$3p$	$4p$	$5p$

The mean of X is,

Select one:

- 2
- 3
- 3.5
- 3.67
- 5.21

[Next page](#)

X

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Which of the following is **not** required for a binomial distribution?

Select one:

- Fixed trials
- Constant probability of success
- Independent trials
- Only two outcomes
- At least fifty observations



Question 4

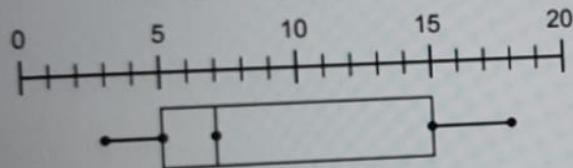
Not yet answered

Marked out of
1.00

Flag question

According to the box-and-whisker plot, what is the maximum number of hot dogs eaten in the hot dog eating contest?

Hot Dogs Eaten by Contestants



Select one:

- 18
- 7
- 3
- 20
- 15

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NetExams

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question 1

Not yet answered

Marked out of
2.00

Flag question

Consider the following probability

$$P(X=x) = (1/12) * x, \text{ for } x=3,4,5$$

Find the expected value

Select one:

- 3
- 0.3
- 4.28
- 2.5
- None of the above

[Next page](#)

In a district, the probability of having a power cut in a house will be 0.0015.

What is the probability that at most 12 houses having the power cut, out of 3000 houses in the district? (Give your answer to 5 decimal places)

0.99919

What is the variance of this distribution?

4.5

What is the rate of the occurrence in this distribution?

0.00240

Next page



NetExam

Sri Lanka Institute of Information Technology

on 4

not answered

out of

g question

$P(A)=3/8, P(B)=5/8,$ and $P(A \cup B)=3/4,$ Find $P(A \cap B)$

Select one:

- 1/5
- 1/4
- 1/8
- 3/8
- None of the above



NetExam

Sri Lanka Institute of Information Technology

A numerical value used as a summary measure for a sample, such as sample mean, is known as a,

Select one:

- Population parameter
- Sample parameter
- Sample statistic
- Population mean
- None of the above

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 NetExam
Sri Lanka Institute of Information Technology

Section 2
yet answered
Marked out of 0
Flag question

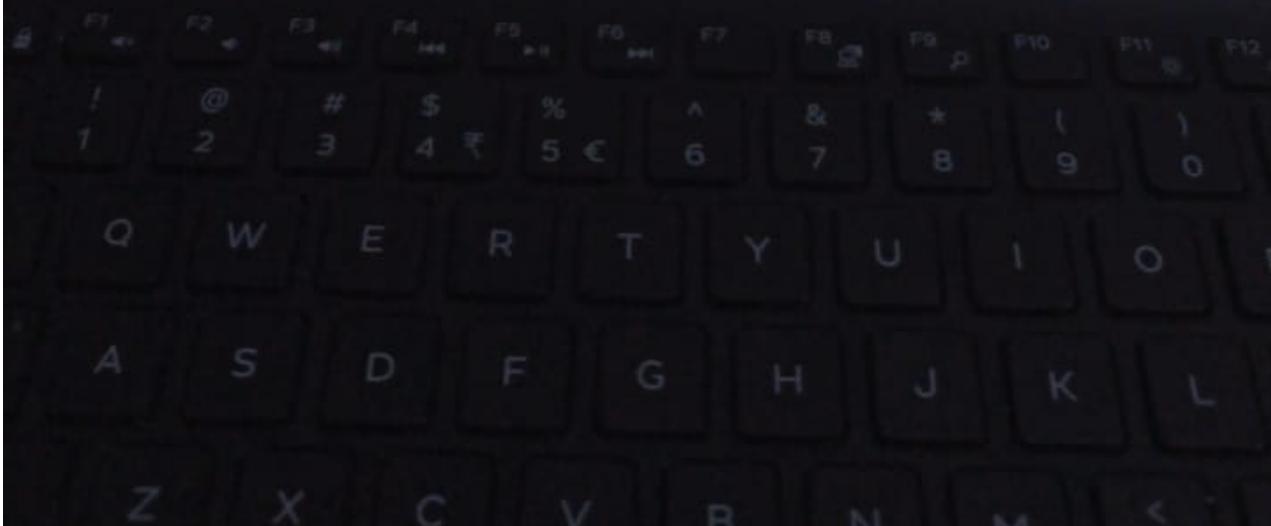
This stem and leaf plot shows the number of cookies that Tia's Girl Scout troop sold each week. How many weeks did they sell 12 cookies?

Stem	Leaf
5	1 1 4
6	4 5 6
7	2 2
8	3 6 7 7

Select one:

- 4
- 87
- 12
- 51
- The Stem and leaf plot do not say.

DELL





NetExam

Sri Lanka Institute of Information Technology

This stem and leaf plot shows the scores of students for a test given out of 100. How many students scored more than 75 marks?

Stem	Leaf
5	2, 6, 6, 8
6	0, 1, 4, 9
7	1, 1, 2, 4, 6, 6, 7
8	0, 0, 3, 4, 5, 5, 7, 8, 9
9	0, 1, 1, 2, 6, 9

Select one:

- 6
- 8
- 8
- 12
- 2



3
Answered
out of
question

Which of the following is a discrete quantitative variable?

Select one:

- The Dow Jones Industrial (stock market) average .
- The volume of water released from a dam.
- The distance you drove yesterday.
- The number of employees of an insurance company
- None of the above.

DELL





Which of the following is **not** required for a binomial distribution?

Select one:

- Constant probability of success
- At least fifty observations
- Fixed trials
- Only two outcomes
- Independent trials



NetExam

Sri Lanka Institute of Information Technology

Find $E(X)$ for the random variable X with table:

values of X :	1	3	5
-----------------	---	---	---

$P(X=x)$:	1/6	1/6	2/3
------------	-----	-----	-----

Select one:

- 4
- 1
- 10
- 8
- None of the above



NetExam

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Consider the following probability

$$P(X=x) = \frac{1}{12}x \text{ for } x=3,4,5$$

Find the expected value

Select one:

- 3
- 0.3
- 4.28
- 2.5
- None of the above

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NetExam

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Which of the following is a discrete quantitative variable?.

Select one:

- The Dow Jones Industrial (stock market) average .
- The volume of water released from a dam.
- The distance you drove yesterday.
- The number of employees of an insurance company
- None of the above.





NetExam

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The class midpoint is

Select one:

- The width of the class
- The upper limit of the class
- The number of observations in a class
- The center of the class
- The lower limit of the class

Next page

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→ X | i | + |

it2015520 Amanullah

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Question 7
yet answered
Marked out of 0
Flag question

If we took the 500 people attending a school in Colombo, divided them by gender, and then took a random sample of the males and a random sampling of the females, the variable on which we would divide the population is called the,

Select one:

- Independent variable.
- Dependent variable.
- Stratification variable.
- Sampling variable.
- None of the above.

Next page

Finish attempt ...
Time left 0:55:52
QUESTIONS
1 2 3 4
9 10 11 12
17 18 19 20
FEEDBACK
21



Question 4

yet answered

Marked out of

1

Flag question

X	-10	-20	30
P(X)	1/5	3/10	1/2

Let X be a random variable with the probability distribution given above. The mean of $g(X) = 2X$ is:

Select one:

- 1
- 7
- 14
- 1
- None of the above

Suppose 2% of the bolts produced by a factory are defective. In a shipment of 3600 bolts from the factory, find the mean number of defective bolts and the standard deviation without using any approximation.

Select one:

- Mean = 72, standard deviation = 70.56
- Mean = 72, standard deviation = 8.4
- Mean = 720, standard deviation = 24
- Mean = 720, standard deviation = 576
- None of the above



Which of the following sampling techniques is an **equal probability selection method** (EPSEM) in which every individual in the population has an equal chance of being selected?

Select one:

- Simple random sampling.
- Systematic sampling.
- Proportional stratified sampling.
- Cluster sampling.
- All of the above are EPSEM.

[Next page](#)



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Suppose in a town three candidates are running for the mayor's seat. To predict the winning candidate, 25 voters were sampled randomly and the following info about each respondents' choice.

CC A B C C B C B B A B C A B A A C C A C A B A B C C

Choose the correct statement.

Select one:

- Population size is 25
- Sample size is not given
- Population is all registered voters in the town at the time of the study.
- Cannot identify a variable from the description
- None of the above

DELL

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Let A and B be events with $P(A^C) = 1/2$, $P(A \cup B) = 3/4$, $P(A|B) = 1/3$ and $P(B^C) = 5/8$ where A^C is the complement of A. Then $P(A \cap B^C)$ is:

Select one:

- 1/8
- 3/8
- 6/8
- 7/8
- None of the above

Next >



NetExam

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1

answered

3 out of

ing question

When arranging data into classes it is suggested that you have

Select one:

- Between 5 and 10 classes
- Always only 5 classes
- More than 20 classes
- Less than 5 classes
- Between 20 and 40 classes

F1

F2

F3

F4

F5

F6

F7

F8

F9

@

#

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%



The class midpoint is

Select one:

- The center of the class
- The width of the class
- The upper limit of the class
- The number of observations in a class
- The lower limit of the class



NetExam

Sri Lanka Institute of Information Technology

A number calculated with complete population data and quantifies a characteristic of the population is called which of the following?

Select one:

- A datum
- A parameter
- A statistic
- A population
- None of the above



Next Page

Sample mean and the median of the following data are respectively given by

-1, 2, 0, 3, 3, 4, 2

Select one:

- 2 and 1.875
- 1.8571 and 2
- 1.7209 and 1.9863
- 1.574 and 2
- None of the above



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5

Answered

out of

Question

What are the outliers for the given data set below.

7, 23, 26, 27, 28, 30, 31, 34, 34

Select one:

- 1,3
- 31, 33
- 30, 31
- 1, 33
- No outliers



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5
answered
out of
question

In a district, the probability of having a power cut in a house will be 0.003.

What is the probability that 10 houses having the power cut, out of 1000 houses in this district? (Give your answer up to 5 decimal places)

What is the variance of this distribution?

What is the rate of the occurrence in this distribution?

Choose... ▾

- Choose...
- 0.20018
- 0.00081
- 4.5
- 3
- 0.61110

Next page

≡ Qui.
Finish att.
Time left 0
QUESTION
1 2
9 10
17 18



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Consider the following probability function

$P(X=x)=cx^2$; $x=3,4,5$, where c is positive constant. Find c.

Select one:

- 0.2
- 0.2
- 0.02
- 2
- None of the above

If the number of arrivals in a queue is 10 per hour on average, determine the probability that, in any hour there will be

0 arrivals

Choose... ▾

6 arrivals

Choose... ▾

more than 6 arrivals

Choose... ▾

- Choose...
- 0.93291
 - 0.06305
 - 0.00005
 - 0.86986

Nex

**Question 8**

Not yet answered

Marked out of
1.00

Flag question

Since the population size is always larger than the sample size, the sample statistic

Select one:

- can never be larger than the population parameter
- can never be equal to the population parameter
- some cases it can be equal to the population parameter
- can never be smaller than the population parameter
- None of the above

Quiz navigation

Finish attempt ...

Time left 0:30:18

QUESTIONS

1	2	3
8	9	10
15	16	17

FEEDBACK

21

Next page

Most analysts focus on the cost of tuition as the way to measure the cost of a college education. But incidentals, such as textbook costs, are rarely considered. A researcher at Drummond University wishes to estimate the textbook costs of first-year students at Drummond. To do so, she monitored the textbook cost of 250 first-year students and found that their average textbook cost was \$300 per semester. Identify the variable of interest to the researcher.

Select one:

- The textbook cost of first-year Drummond University students.
- The year in school of Drummond University students.
- The age of Drummond University students.
- The cost of incidental expenses of Drummond University students.
- None of the above.

[Next page](#)



SRI LANKA INSTITUTE OF INFORMATION TECHNOLOGY

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Question 11

Not yet answered

Marked out of
1.00

Flag question

What is the probability that the sum of two die will be greater than 8, given that the first die is 6?

Select one:

- 1/2
- 3/4
- 2/3
- 7/12
- None of the above



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Question 5

Not yet answered
Marked out of
0.00

Flag question

Select the correct answer from the below description

A survey conducted by a statistician interviewed 200 young men who didn't go to university. Of those who took restaurant jobs, one in two reached a higher level job and one in four reached a managerial position.

Select one:

- 200 young men are the population of interest
- The variable of interest is a qualitative variable.
- 25% is the population proportion of those who reached the managerial position.
- The sample size is not given in the description
- None of the above



Next pa

A dresser drawer contains one pair of socks with each of the following colours: blue, brown, red, white and black. Each pair is folded together in a matching set. You reach into the sock drawer and choose a pair of socks without looking. You replace this pair and then choose another pair of socks. What is the probability that you will choose the red pair of socks both times?

Select one:

- 1/5
- 1/25
- 1/10
- 1/15
- None of the above

[Next page](#)



A personal computer user survey was conducted. Time of personal computer use per week is an example of a

Select one:

- Discrete numerical variable
- Continuous numerical variable
- Nominal categorical variable
- Ordinal categorical variable
- None of the above.



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Answered
of
question

The statistics course consists of two (2) online quizzes. 22% of the class passed both tests and 41% of the class passed the first test. About what percent of those who passed the first test also passed the second test? (Round up the answer to the nearest integer)

Select one:

- 54%
- 20%
- 3%
- 24%
- None of the above



☰ Quiz na

Finish attempt

Time left 0:28:01

QUESTIONS

1 2 3

9 10 11

17 18 19

21

Next page

FEEDBACK



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Question 15

Not yet answered

Marked out of
2.00

Flag question

If A is the event, "The team wins at least 5 foot ball games", then A' is:

Select one:

- The team wins more than 5 foot ball games
- The team wins less than 5 foot ball games
- The team does not win any foot ball game
- There is no sufficient information to answer the question
- None of the above



Question 4

Not yet answered

Marked out of
3.00

Flag question

Assuming that the weekly demand for a video recorder is a poisson variable with mean 3, find the probability that the shop sells

at least 3 in a week.

Choose... ▾

Choose...

0.57681

0.9881

0.08392

0.03351

0.0116

at most 7 in a week.

more than 20 in a month.

Next page

wered
ut of
question

Let A and B be events with $P(A^C) = 1/2$, $P(A \cup B) = 3/4$, $P(A|B) = 1/3$ and $P(B^C) = 5/8$ where A^C is the complement of A. Then $P(A^C \cap B^C)$ is:

Select one:

- 1/8
- 3/8
- 6/8
- 7/8
- None of the above

[Next page](#)

NetExam

Sri Lanka Institute of Information Technology

What is the probability that the sum of two die will be greater than 8, given that the first die is 6?

Select one:

- 1/2
- 3/4
- 2/3
- 7/12
- None of the above

Let A and B be events with $P(A^C) = 1/2$, $P(A \cup B) = 3/4$, $P(A|B) = 1/3$ and $P(B^C) = 5/8$ where A^C is the complement of A. Then $P(A \cap B^C)$ is:

Select one:

- 1/8
- 3/8
- 6/8
- 7/8
- None of the above

[Next page](#)

1

FEET

21



Question 13

Not yet answered

Marked out of 1.00

Flag question

At a certain school, 18% of all students play football and basketball and 32% of all students play football. What is the probability that a student plays basketball given that the student plays football? (Round up the answer to the nearest integer)

Select one:

- 56%
- 178%
- 50%
- 32%
- None of the above

Quiz navigation

Finish attempt ...

Time left 0:24:21

QUESTIONS

1	2	3	4
8	9	10	11
15	16	17	18
21			

[Next page](#)

FEEDBACK

21

When Joe bowls, he can get a strike (knock down all of the pins) 60% of the time. Assuming that all trials are independent and identical what is the probability for him to bowl zero strikes out of four tries?

Select one:

- 512/10000
- 256/1000
- 256/10000
- 128/10000
- None of the above

A garment factory produces large lots of a certain type of garments. What is the mean of the number of defective units found in a sample of 10 units if the lot is 2% defective?

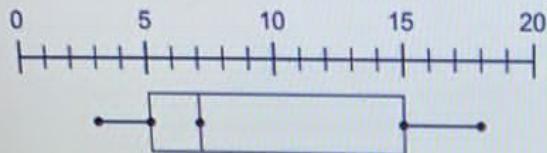
Select one:

- 5
- 2
- 0.2
- 0.98
- None of the above

[Next page](#)

According to the box-and-whisker plot, what is the maximum number of hot dogs eaten in the hot dog eating contest?

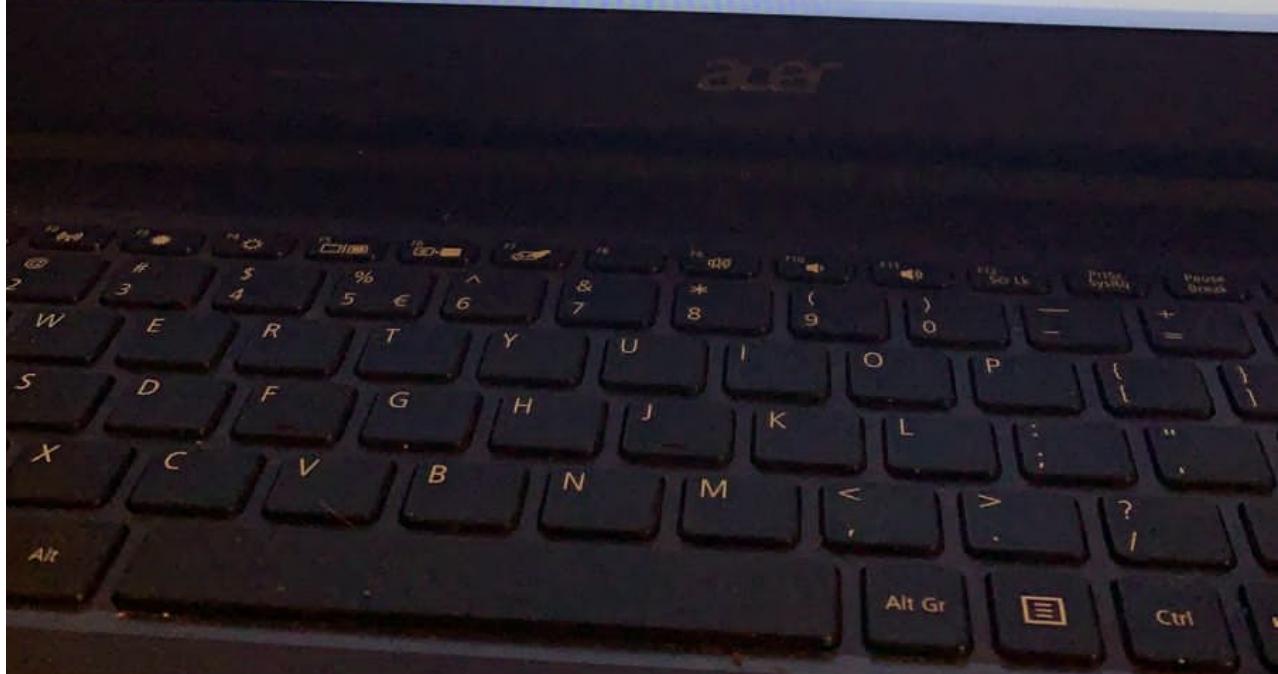
Hot Dogs Eaten by Contestants



Select one:

- 18
- 20
- 15
- 7
- 3

[Next page](#)





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Sri Lanka Institute of Information Technology

Question 15

Not yet answered

Marked out of
3.00

Flag question

If the number of arrivals in a queue is 10 per hour on average, determine the probability that, in any hour there will be

0 arrivals

Choose... ▾



Choose...

0.86986

0.00005

0.93291

0.06305

6 arrivals

more than 6 arrivals

Next page

The probability of a machine producing a defective part is 0.02.

What is the probability of having more than 5 defective parts, out of a sample of 200? (Round your answer upto 5 decimal places)

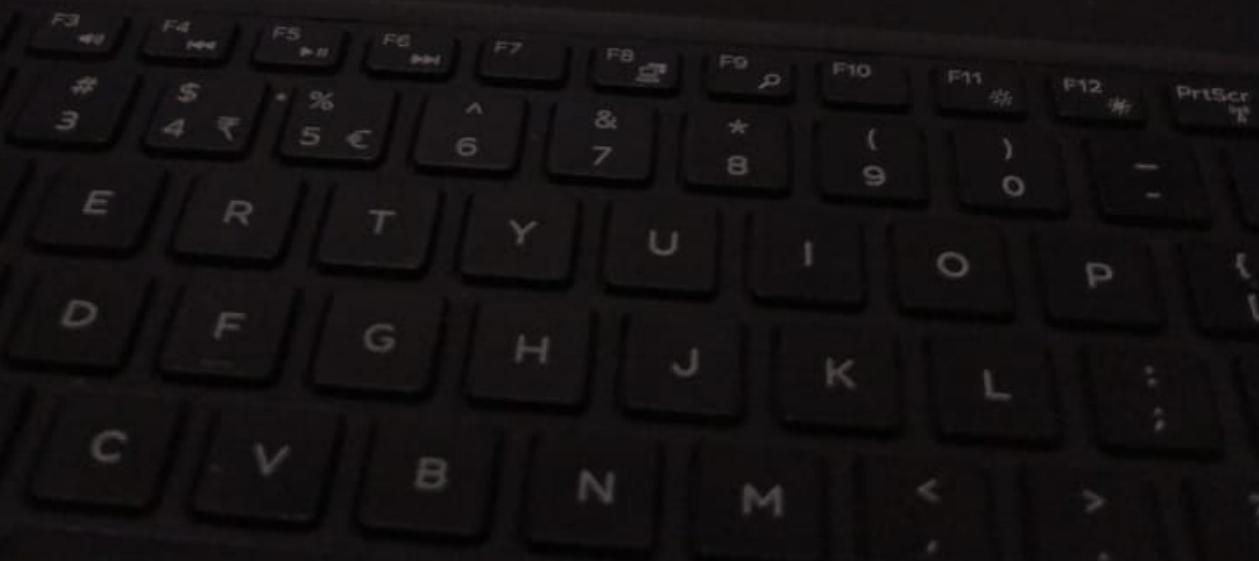
What is the rate of the occurrence in this distribution?

What is the variance of this distribution?

- Choose...
- Choose...
- 4
- 0.37116
- 2.92
- 0.41847
- 0.21487

Next p

DELL



Institute of Information Technology

The probability of a machine producing a defective part is 0.02.

The probability of having more than 5 defective parts, out of a sample of 200? (Round your answer upto 5 decimal places)

What is the probability of the occurrence in this distribution?

What is the rate of the occurrence in this distribution?

What is the variance of this distribution?

Choose... ▾

Choose... ▾

Choose... ▾

Mode and the median of the following data set respectively

6, 5, 5, 4, 3, 5

Select one:

- 6 and 6
- 5 and 6
- 5 and 5.5
- 5 and 5
- None of the above



Question 6

Not yet answered
Marked out of
1.00

Flag question

The statistics course consists of two (2) online quizzes. 22% of the class passed both tests and 41% of the class passed the first test. About what percent of those who passed the first test also passed the second test? (Round up the answer to the nearest integer)

Select one:

- 54%
- 20%
- 3%
- 24%
- None of the above



[Next page](#)

Quiz na

[Finish attempt](#)

Time left 0:21:24

QUESTIONS

1 2 3

9 10 11

17 18 19

21

FEEDBACK

Let A and B be events with $P(A^C) = 1/2$, $P(A \cup B) = 3/4$, $P(A|B) = 1/3$ and $P(B^C) = 5/8$ where A^C is the complement of A. Then $P(A \cap B^C)$ is:

Select one:

- 1/8
- 3/8
- 6/8
- 7/8
- None of the above



Next page



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A garment factory produces large lots of a certain type of garments. What is the mean of the number of defective units found in a sample of 10 units if the lot is 2% defective?

Select one:

- 5
- 2
- 0.2
- 0.98
- None of the above

[Next page](#)

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NetExam

Sri Lanka Institute of Information Technology

Question 18

Not yet answered

Marked out of 2.00

Flag question

Find the outliers, if any, for the following data set

18 44 47 55 61 62 78 79 83 145

Hint: Outlier is defined as a value x , holding the following conditions.

$x > Q3 + 1.5 \times (\text{Inter Quartile Range})$

$x < Q1 - 1.5 \times (\text{Inter Quartile Range})$

Is "18" an outlier? Yes

Is "145" an outlier? No

Next page

QUI

Finish att

Time left

QUESTION

1 2

8 9

15 16

FEEDBACK

21

The probability that a patient recovers from a heart operation is 0.9. What is the probability that at least 2 of the next three patients who have this operation recover? (Don't use any approximation)

Select one:

- 0.8960
- 0.9720
- 0.7890
- 0.5960
- None of the above



Nex

Determining the sample interval (represented by k), randomly selecting a number between 1 and k, and including each kth element in your sample are the steps for which form of sampling?

Select one:

- Simple Random Sampling
- Stratified Random Sampling
- Systematic Sampling
- Cluster sampling
- None of the above



Next



Assuming that the weekly demand for a video recorder is a poisson variable with mean 3, find the probability that the shop sells

at least 3 in a week.

Choose... ▾



Choose...

0.08392

0.9881

0.03351

0.57681

0.0116

at most 7 in a week.

more than 20 in a month.

Next pag



To be an outlier for the following data set, data points should lie between,

10.2, 14.1, 14.4, 14.4, 14.4, 14.5, 14.5, 14.6, 14.7, 14.7, 14.7, 14.7, 14.9, 15.1, 15.9, 16.4

Hint: Outlier is defined as a value x , holding the following conditions.

$x > Q3 + 1.5 * (\text{Inter Quartile Range})$

$x < Q1 - 1.5 * (\text{Inter Quartile Range})$

Upper bound	Choose... ▾
Lower bound	Choose... ▾
	15.25
	13.15 ↗
	15.35
	16.15
	13.65
	13.45
	15.45
	12.45
	15.65

Next page



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Question 15

Not yet answered

Marked out of
2.00

Flag question

X	-10	-20	30
P(X)	1/5	3/10	1/2

Let X be a random variable with the probability distribution given above. The mean of $g(X) = 2X$ is:

Select one:

- 4
- 7
- 14
- 1
- None of the above

The below transformation is applied to a data set

$$Y = 3X + 4$$

Where X is old data and Y is New data. If the variance of the old data set is 5. The variance of the new data set is,

Select one:

- 49
- 5
- 9
- 45
- None of the above



Module

19

answered
19 out of
20 questions

NetExam

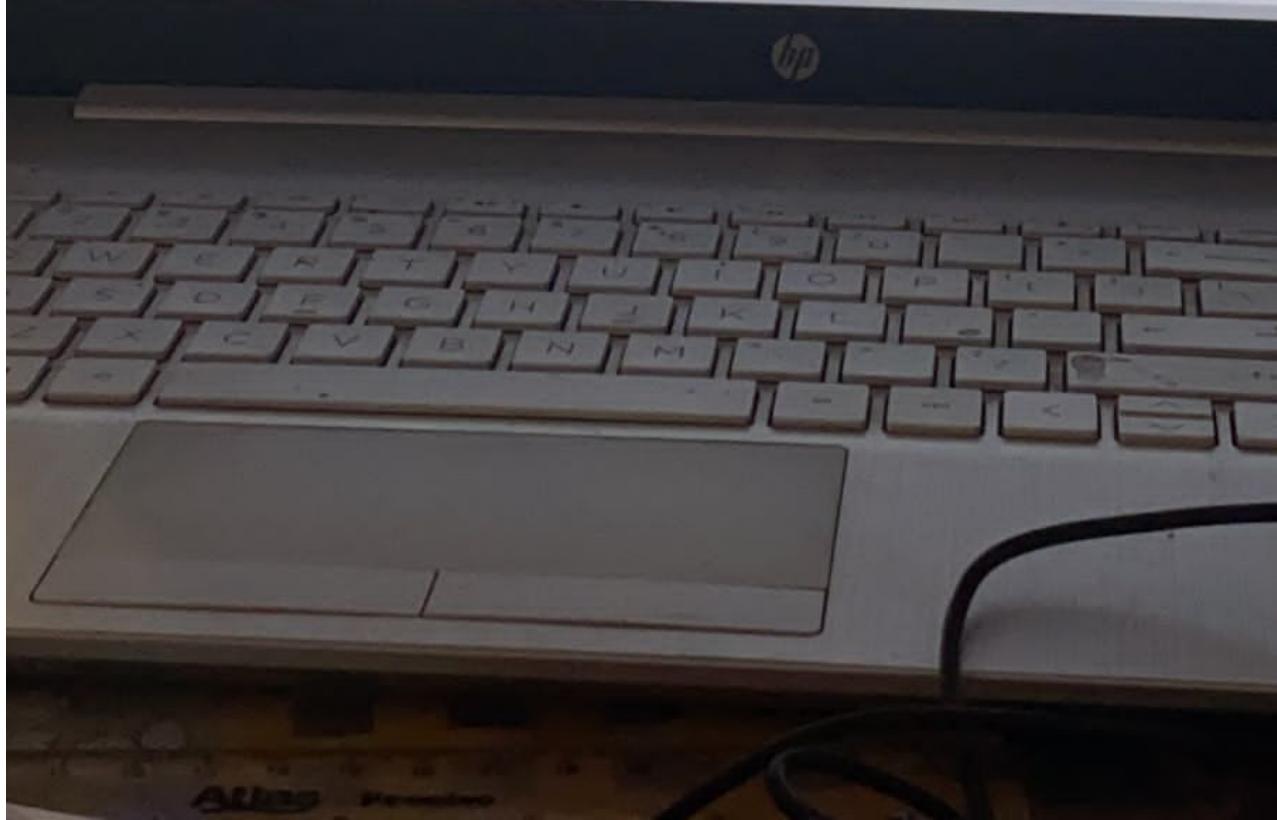
Sri Lanka Institute of Information Technology

At a certain school, 18% of all students play football and basketball and 32% of all students play football. What is the probability that a student plays basketball given that the student plays football? (Round up the answer to the nearest integer)

Select one:

- 56%
- 178%
- 50%
- 32%
- None of the above

Next page





NetExam

Sri Lanka Institute of Information Technology

Question 20

Not yet answered

Marked out of
3.00

Flag question

The number of misprints on a page of the Daily Mercury has a Poisson distribution with mean 1.2. Find the probability of errors

on page four is 2.

Choose... ▾

on page three is less than 3.

Choose... ▾

on the first ten pages totals 5.

Choose... ▾

- Choose...
- 0.12051
 - 0.01274
 - 0.69881
 - 0.87949
 - 0.21686

The purpose of stratified random sampling is to make certain that,

Select one:

- Every member of the population has an equal chance of being selected for the sample.
- The sample proportionately represents individuals from different categories of the population.
- The participants chosen for the study are the ones most likely to react to the treatment.
- The sample is more representative of the actual population than the accessible population.
- None of the above



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 NetExam
Sri Lanka Institute of Information Technology

The statistics course consists of two (2) online quizzes. 22% of the class passed both tests and 41% of the class passed the first test. About what percent of those who passed the first test also passed the second test? (Round up the answer to the nearest integer)

Select one:

- 54%
- 20%
- 3%
- 24%
- None of the above

Next page



NetExam

Sri Lanka Institute of Information Technology

A personal computer user survey was conducted. Time of personal computer use per week is an example of a

Select one:

- Discrete numerical variable
- Continuous numerical variable
- Nominal categorical variable
- Ordinal categorical variable
- None of the above.

Next page



X



NetExam

Sri Lanka Institute of Information Technology

16

answered
out of
question

A and B are two events. $P(A \text{ and } B)'$ is equal to;

Select one:

- $P(A' \text{ or } B)$
- $P(A \text{ and } B')$
- $P(A' \text{ and } B')$
- $P(A' \text{ or } B')$
- None of the above.

Determine the value of k so that the function $P(X=x) = kx$ for $x=1,2,3,4,5,6$ can serve as a probability distribution of the discrete variable X.

Select one:

- 3/21
- 5/21
- 1/21
- 2/21
- None of the above



To be an outlier for the following data set, data points should lie between,

10.2, 14.1, 14.4, 14.4, 14.4, 14.5, 14.5, 14.6, 14.7, 14.7, 14.7, 14.7, 14.9, 15.1, 15.9, 16.4

Hint: Outlier is defined as a value x , holding the following conditions.

$x > Q3 + 1.5 * (\text{Inter Quartile Range})$

$x < Q1 - 1.5 * (\text{Inter Quartile Range})$

Upper bound

Choose... ▾

Choose...

Lower bound

15.35

15.25

13.15

16.15

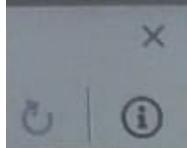
13.65

15.65

12.45

13.45

15.45



NetExam

Sri Lanka Institute of Information Technology

Let E be an event and E' is its complement. If $P(E) = 1/3$, what is $P(E')$?

Select one:

- $P(E') = P(E) = 1/3$
- $P(E') = P(E) - 1 = -2/3$
- $P(E') = 2 * P(E) = 2/3$
- $P(E') = 1 - P(E) = 2/3$
- None of the above

$x > Q3 + 1.5 * (\text{Inter Quartile Range})$

$x < Q1 - 1.5 * (\text{Inter Quartile Range})$

Is "145" an outlier?

Choose... ▾

Choose...

No

Yes

Is "18" an outlier

After studying a couple's family history, a doctor determines that the probability of any child born to this couple having a gene for disease X is 1 out of 4. If the couple has three children, what is the probability that exactly two of the children have the gene for disease X?

Select one:

- 9/64
- 10/64
- 12/64
- 7/64
- None of the above



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Sri Lanka Institute of Information Technology

Question 7

Not yet answered

Marked out of
1.00 Flag question

This stem and leaf plot shows the number of cookies that Tia's Girl Scout troop sold each week. How many weeks did they sell cookies?

Stem	Leaf
5	1 1 4
6	4 5 6
7	2 2
8	3 6 7 7

Select one:

- 4
- 87
- 12
- 51
- The Stem and leaf plot do not say.

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When each member of a population has an equally likely chance of being selected, this is called:

Select one:

- A nonrandom sampling method.
- A quota sample.
- A judgement sampling
- A simple random sample.
- None of the above.

The type of sampling in which each member of the population selected for the sample is returned to the population before the next member is selected is called,

Select one:

- Sampling without replacement
- Sampling with replacement
- Simple random sampling
- Systematic sampling
- None of the above

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