



Online Exams

Sri Lanka Institute of Information Technology

A researcher reports that mice will live an average of 45 months when their diets are sharply restricted and then enriched with vitamins and proteins. Assuming that the lifetimes of such mice are normally distributed with a standard deviation of 7.3 months, find the probability that a given mouse will live,

1. More than 30 months : 0.98 (Keep all the decimal places in the answer)
2. Between 38 and 47 months : 0.439 (Keep all the decimal places in the answer)

3. What is the life time (in months) of a mouse where 20% of all mice have less than this life time? 39 | months
(Give your answer to the nearest integer)

Type your answers within the given spaces

[Next page](#)



Online Exams

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1
answered
out of
question

In an experiment, it is given that $P(A) = 0.3$ and $P(B) = 0.5$ and $P(A \cup B) = 0.8$. Are A and B mutually exclusive?

Select one:

- Yes
- No
- Given information is not enough to decide.

Online Exams

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Question 8
Not answered
1 out of 1
Next question

After a survey, done by a Research group in a certain university in USA, claimed that 40% of the people in USA will vote for Donald Trump. From a sample of 50 people, without using any approximation, calculate the probability that,

a) At least 20 people will vote for Donald Trump?

b) Fewer than 12 people vote for Donald Trump?

c) Using a suitable approximation, find the probability that less than 15 people will vote for Donald Trump?

Type your answers within the given spaces [Keep all decimal places of the final answer].

Next page

Online Exams

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it190338

Question 5
Not answered
0 out of 1
Next question

A manufacturer of PVC pipes claims that inside diameters of PVC pipes produced by his company are approximately normally distributed with a mean of 12 inches and standard deviation of 2.3 inches. Find the following probabilities.

1. Probability that diameter of a PVC pipe is at most 10 inches : (Keep all the decimal places in the answer)

2. Probability that diameter of a PVC pipe is in between 11 inches and 14 inches : (Keep all the decimal places in the answer)

3. At which diameter, 43% of PVC pipes have less than that diameter? inches (Keep the answer with two decimal points)

(Type your answers within the given spaces)

Next page

on 7
answered
out of
question

Online Exams

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A researcher found that pulse rates of women, who are affected by COVID-19 virus has a mean of 75 and the standard deviation is 8. Assuming that pulse rate of women follows a normal distribution, find the following probabilities.

1. Probability that a COVID-19 infected woman has less than 70 pulse rate : (Keep all the decimal places in the answer)
2. Probability that a COVID-19 infected woman has pulse rate in between 55 and 90 : (Keep all the decimal places in the answer)
3. At which pulse rate, 30% of COVID-19 infected women have more than that pulse rate? (Keep the answer with two decimal points)

(Type your answers within the given spaces)

Next page

≡ Quiz navigation

DECLARATION

QUESTIONS

FEEDBACK

Finish attempt

Time left 0:53:12

goodle x

1
answered
out of
question

Online Exams

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A typist of a certain Book Publishing Company can type 7 pages per day. Without using any approximation, calculate the probability that.

- a) The typist types more than 8 pages per day
- b) The typist types fewer than 3 pages per day

c) Using a suitable approximation, find the probability that the typist types less than or equal to 4 pages per day.

Type your answers within the given spaces [Keep all decimal places of the final answer].

it19202

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Question 4
Not yet answered
Marked out of 12.00
Flag question

A researcher found that pulse rates of women, who are affected by COVID-19 virus has a mean of 75 and the standard deviation is 8. Assuming that pulse rate of women follows a normal distribution, find the following probabilities.

- Probability that a COVID-19 infected woman has less than 70 pulse rate : (Keep all the decimal places in the answer)
- Probability that a COVID-19 infected woman has pulse rate in between 55 and 90 : (Keep all the decimal places in the answer)
- At which pulse rate, 30% of COVID-19 infected women have more than that pulse rate? (Keep the answer with two decimal points)

(Type your answers within the given spaces)

Next page

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A researcher has found that average life time of a truck tire is 50500 miles with a standard deviation of 2500 miles. Assuming that life time of a truck tire follows a normal distribution, find the following probabilities.

- Probability that life time of a truck tire is at least 60000 miles : (Keep all the decimal places in the answer)
- Probability that life time of a truck tire is 45000 to 58900 miles : (Keep all the decimal places in the answer)
- What is the life time (in miles) where 38% of truck tires took less than this life time? miles (Give the answer to the nearest integer)

(Type your answers within the given spaces)

Next page

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In an experiment, $P(A) = 0.4$ and $P(B) = 0.7$ and $P(A \cap B) = 0.2$. Are A and B independent?

Select one:

- Yes
- No
- Given information is not enough to decide.

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IT19391946 Wijerathne H

Question 10
Not yet answered
Marked out of 9.00
 Flag question

A typist of a certain Book Publishing Company can type 7 pages per day. Without using any approximation, calculate the probability that.

a) The typist type more than 8 pages per day

b) The typist type fewer than 3 pages per day

c) Using a suitable approximation, find the probability that the typist type less than or equal to 4 pages per day.

Type your answers within the given spaces [Keep all decimal places of the final answer].

Quiz navigation

DECLARATION

QUESTIONS

1	2	3	4	5	6
9	10				

FEEDBACK

Finish attempt

Time left 0:19:23

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A Manager of a certain super market is concerning about the number of customers arrive within the first hour since it is opened in the morning. On average 9 customers are coming within the first hour. Without using any approximation, calculate the probability that,

a) Fewer than 5 people are arriving to the Super Market.

b) At least 6 people are arriving to the Super Market.

c) Using suitable approximation, find the probability that more than 10 people are arriving to the Super Market.

Type your answers within the given spaces [Keep all decimal places of the final answer].

[Next page](#)

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In an experiment, $P(A) = 0.4$ and $P(B) = 0.7$ and $P(A \cup B)' = 0.2$. Are A and B independent?

Select one:

Yes

No

Given information is not enough to decide.

A online video store rents movies to members. Each movie in the store has a title and is identified by a movie number. A movie can be in VHS, VCD, or DVD or any other format. Each movie can be stored in multiple format types as well. Each movie belongs to one of a given set of categories like action, adventure, comedy , etc. There are two types of members, Golden Members who require their credit card and can rent more than one movie at a time. Bronze Members who don't require their credit card and can rent only one movie at a time.

Which of the following statements are correct with respect to the above description.

Select one or more:

- a. Categories can exist without movies
- b. The store is an entity in the EER diagram
- c. Movie types could be represented by an entity name format
- d. There are no descriptive attributes for relationships in the diagram
- e. Golden member and Bronze member cover Member

Next page

$E(X)$ 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

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.

0.9098

in particular week there will be more than 5 accidents.

0.00001

in a 3 week period there will be no accidents.

0.22313

Let A and B be events with $P(A)=0.6$, $P(B)=0.3$ and $P(A \cap B)=0.2$. What is $P(A \cup B)$?

Select one:

- 0.7
- 0.9
- 0.6
- 0.5
- None of the above

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

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

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

The average rate of telephone calls in a busy reception is 4 per minute. Calculate the probability that,

at least 2 telephone calls will be received in any minute

Choose...

any minute with free of telephone calls

Choose...

5 telephone calls will be received in any minute

✓ Choose...

0.01832

0.15629

0.90842

None of the above

0.37116

0.21487

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

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

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

Three bulbs are chosen from 15 bulbs of which 5 are defective. The probability that none is defective is,

Select one:

- 1/125
- 8/27
- 27/125
- 1/27
- None of the above

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

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. The

Select one:

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

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Question 2
Not yet answered
Marked out of 1.00
Flag question

An example for a nominal categorical variable is,

Select one:

- Importance of culture to respondent (very, somewhat, or not very important)
- Opinion about a new political law (favor or oppose)
- Length of forearm from elbow to wrist (in centimeters)
- Number of songs on a digital music player
- None of the above

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Question 1
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.

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Select the **incorrect** statement?

Select one:

- Histogram can be used to describe numerical variables
- Pie chart can be used to describe one categorical variable
- Two way table can be used to describe two categorical variables
- Boxplot can be used to describe only one categorical variable
- Stem and leaf plot can be used to describe numerical variables.

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The collection and summarization of the socioeconomic and physical characteristics of the employees of a particular firm is an example of

Select one:

- Inferential statistics.
- Descriptive statistics.
- A parameter.
- A statistic.
- None of the above.

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Following is **not** an example for a survey error.

Select one:

- Sampling error
- Measurement error
- Selection bias
- Non-response bias

None of the above

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Question 3
Not yet answered
Marked out of 1.00
Flag question

An example for a probability sampling method is.

Select one:

- Quota sampling method
- Convenience sampling method
- Stratified random sampling method
- Volunteer sampling method
- None of the above

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Q 1
25 unanswered
out of 50
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.
C C A B C C B C 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

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NetExam
Sri Lanka Institute of Information Technology

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
0.9881
0.03351
0.08392
0.0116

Next page

1 9 17 21

SLIIT Sri Lanka Institute of Information Technology

Question 1
Not yet answered
Marked out of 3.00
Flag question

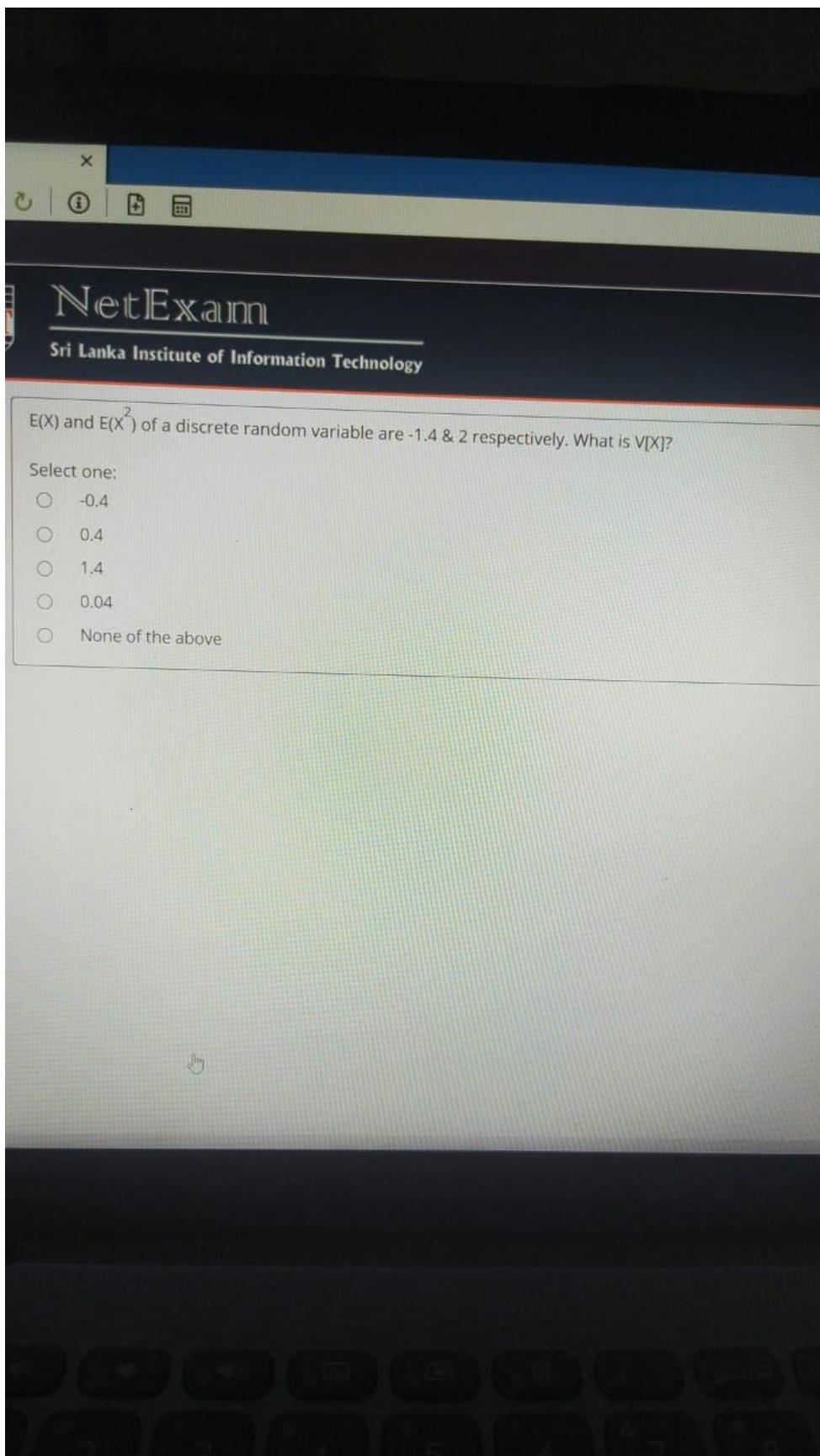
The number of industrial injuries per working week in a particular factory is known to follow a Poisson distribution with mean 0.5. Find the probability that,

in particular week there will be less than 2 accidents.
in particular week there will be more than 5 accidents.
in a 3 week period there will be no accidents.

Choose... ▾

Choose...
0.54476
0.9098
0.77687
0.22313
0.00001

Next page

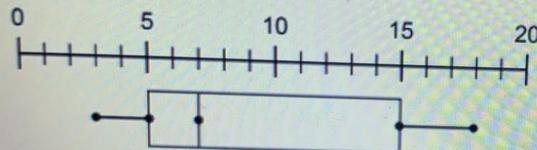




1
Answered
out of
question

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

 NetExam
Sri Lanka Institute of Information Technology

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...
exact 2 jobs Choose...
at least 3 arrivals Choose...
0.32332
0.27067
0.13534
0.59399
0.86466

Next page

 NetExam
Sri Lanka Institute of Information Technology

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

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NetExam

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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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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

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

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

 NetExam
Sri Lanka Institute of Information Technology

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

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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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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

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NetExam
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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

 NetExam
Sri Lanka Institute of Information Technology

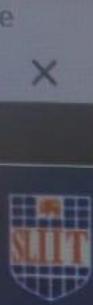
5
Answered
out of
question

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



NetExam

Sri Lanka Institute of Information Technology

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

NetExamination
Sri Lanka Institute of Information Technology

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 a discrete random variable X .

Select one:

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

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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?

Paint Sold Per Month at John's (in gallons)

Select one:

- 66
- 61
- 60
- 62
- 58

Moodle

NetExam
Sri Lanka Institute of Information Technology

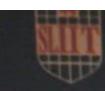
Question 3
Not yet answered
Marked out of 1.00
Flag question

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

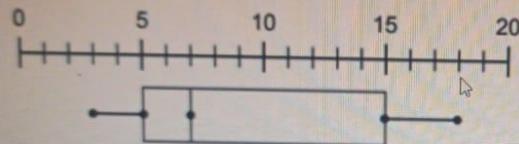
Next page



in 6
answered
out of
g 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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estion

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

Flag question

The best sample is one that is,

Select one:

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



NetExam

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Question 1

yet answered

marked out of

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

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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
- 256/100000
- 128/10000
- None of the above

Next page

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

NetExam
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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?

Time left
QUESTIONS

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

Next page

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.

The screenshot shows a computer monitor displaying a software application titled "NetExam" from "Sri Lanka Institute of Information Technology". The main content area contains a math problem:

What are the outliers for the given data set below. It found that $Q1 = 24.5$, $Q2 = 28$ and $Q3 = 32.5$ for the data set.
7, 23, 26, 27, 28, 30, 31, 34, 34

Select one:

- 23
- 7
- 34
- 26
- No outliers

A red star icon is visible in the top right corner of the screen.

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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

it20236182 Bandara P...

NetExam
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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

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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

SLIT
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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](#)

Moodle

NetExam

Sri Lanka Institute of Information Technology

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

NetExam

Sri Lanka Institute of Information Technology

on 7

Not answered

Marked out of 1.00

Flag 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

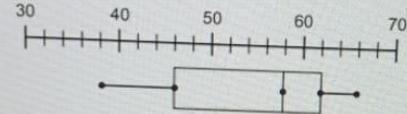
Not yet answered

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?

Paint Sold Per Month at John's (in gallons)



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



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

NetExam
Sri Lanka Institute of Information Technology

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.
C C A B C C B C B A B C A B 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

Next page

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

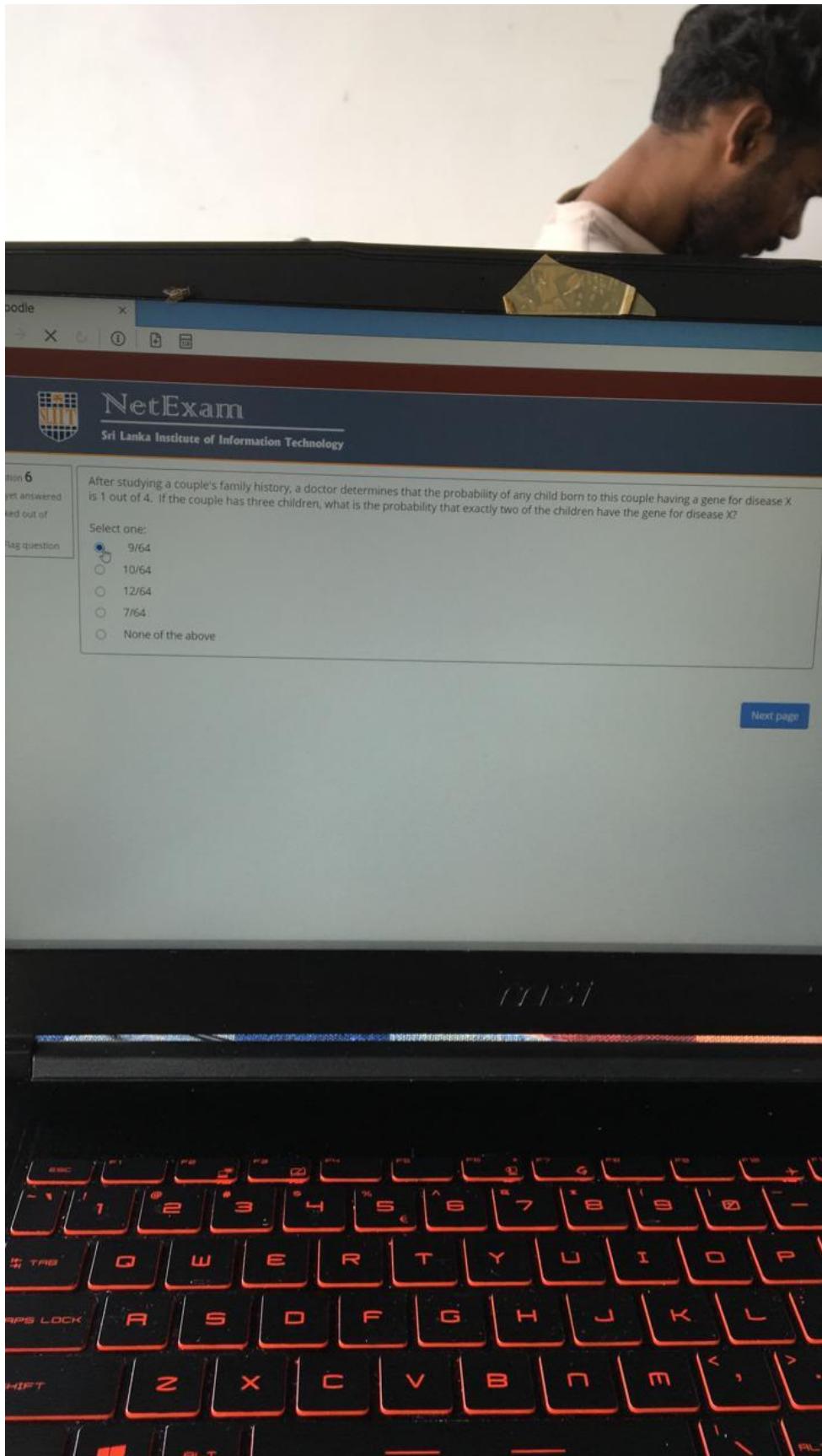
NetExam
Sri Lanka Institute of Information Technology

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 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 >

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 NetExam
Sri Lanka Institute of Information Technology

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.

@ # \$ % ^ & * ()

W E R T Y U I O

NetExam
Sri Lanka Institute of Information Technology

Let E be an event and E' 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

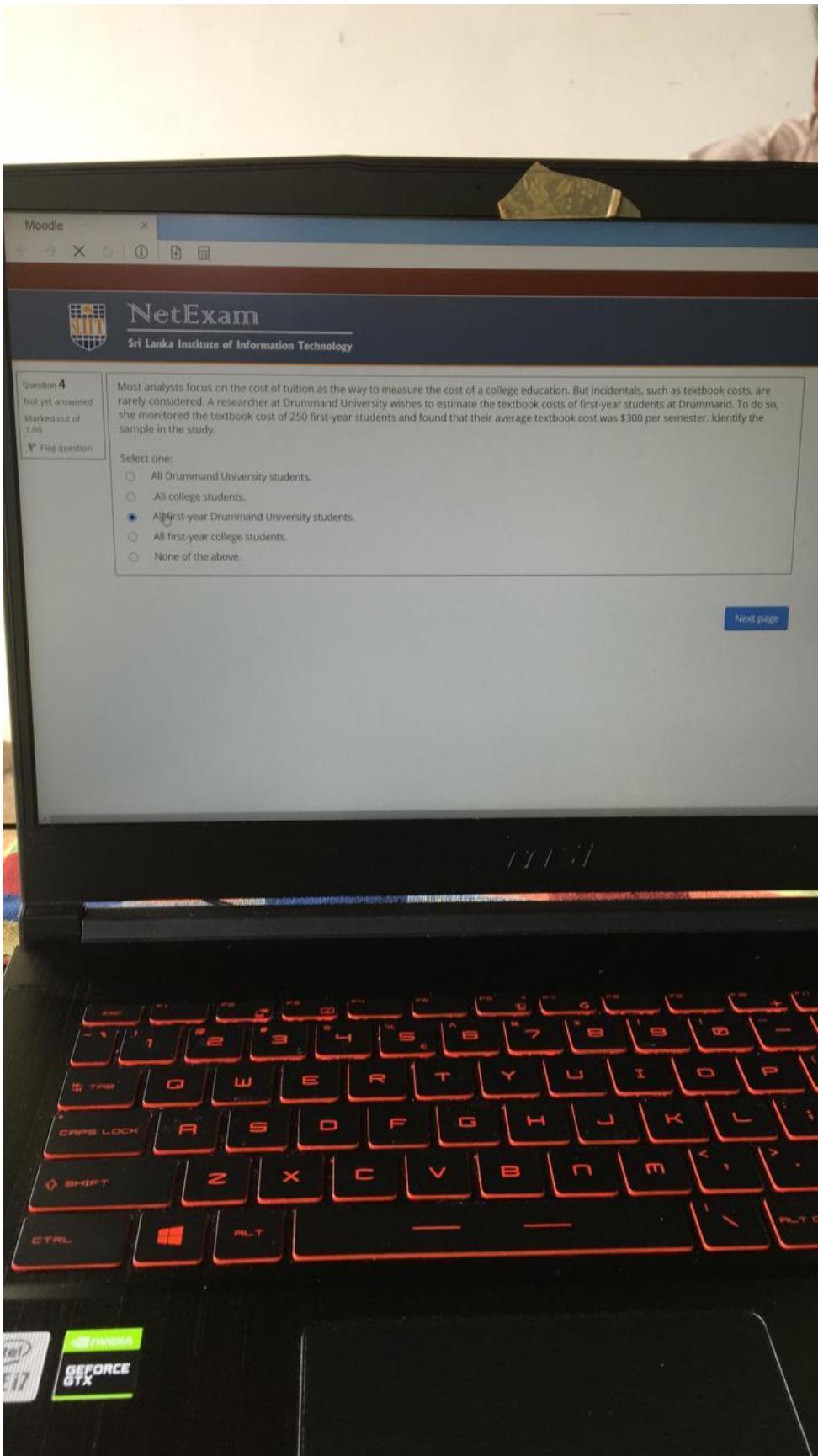
Roll a fair die twice. Let X be the random variable that gives the absolute value of the differences between the two numbers.

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

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

Select one:

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



it19526430 Wijesiriwardena

NetExam
Sri Lanka Institute of Information Technology

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

Select one:

- P(A' or B)
- P(A and B')
- P(A' and B')
- P(A' or B')
- None of the above.

Next page

Quiz navigation

Finish attempt ...
Time left 1:02:35
QUESTIONS
1 2 3 4
9 10 11 12
17 18 19 20
FEEDBACK
21

NetExam
Sri Lanka Institute of Information Technology

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.



wered
of
estion

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



ered
of
tion

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

NetExam
Sri Lanka Institute of Information Technology

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 

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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 $b=0.5$



NetExam

Sri Lanka Institute of Information Technology

Next page

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
- 6 arrivals
- more than 6 arrivals

≡ Quiz n

Finish attempt

Time left 0:27:5

QUESTIONS

1 2 3

9 10 11

17 18 19

Next page

FEEDBACK

21

it170

NetExam
Sri Lanka Institute of Information Technology

Question 5
Not yet answered
Marked out of 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

Finish a
Time le
QUESTI
1
9
17
21
FEEDBA

Sri Lanka Institute of Information Technology

Question 12
Not yet answered
Marked out of 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

The screenshot shows a computer screen displaying a software application titled "NetExam" from "Sri Lanka Institute of Information Technology". The main window contains a question: "Which of the following is **not** required for a binomial distribution?". Below the question, the instruction "Select one:" is followed by five options, each preceded by a radio button. The options are: "Fixed trials", "Constant probability of success", "Independent trials", "Only two outcomes", and "At least fifty observations". The option "At least fifty observations" has a blue dot next to it, indicating it is the selected answer.

NetExam

Sri Lanka Institute of Information Technology

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

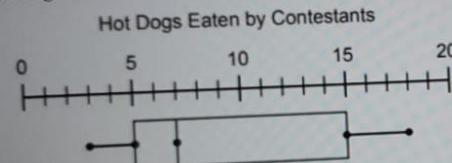


Question 4

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?



Select one:

- 18
- 7
- 3
- 20
- 15

[Next page](#)

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](#)



NetExam

Sri Lanka Institute of Information Technology

on 4

answered

out of

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



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
- 18
- 8
- 12
- 2

 NetExam
Sri Lanka Institute of Information Technology

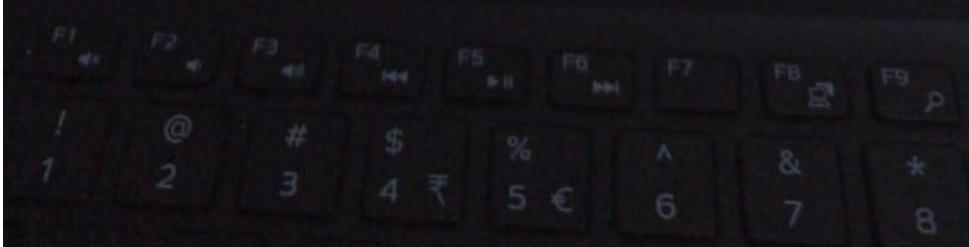
3 answered out of 5 question

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





2
Answered
out of
question

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
Sri Lanka Institute of Information Technology

Consider the following probability
 $P(X=x) = (1/12) * x$, for $x=3,4,5$

Find the expected value

Select one:

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

The screenshot shows a computer monitor displaying a web-based examination interface. At the top, there is a blue header bar with several icons: a magnifying glass, a gear, a person icon, a plus sign, and a document icon. Below this is a dark blue navigation bar containing the text "NetExam" in white and "Sri Lanka Institute of Information Technology" in a smaller white font. To the left of the main content area, there is a vertical sidebar with some partially visible text: "ed" and "on". The main content area contains a question and a list of five options for selection. The question reads: "Which of the following is a discrete quantitative variable?." Below the question, the text "Select one:" is followed by a list of five items, each preceded by a radio button. The fifth item, "The number of employees of an insurance company", has a blue dot next to it, indicating it is the selected answer. The rest of the page is mostly blank, with a small cursor icon visible near the bottom center.

ed

on

NetExam

Sri Lanka Institute of Information Technology

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.

Google Chrome

NetExam
Sri Lanka Institute of Information Technology

it20155520 Amanullah

Question 7
yet answered
marked out of 1
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

Quiz navigation

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

Sri Lanka Institute of Information Technology

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

X | O | I | H | C

 NetExam
Sri Lanka Institute of Information Technology

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](#)



Sri Lanka Institute of Information Technology

Suppose in a town three candidates are running for the mayor's seat. To predict the winning candidate, 100 voters randomly and the following info about each respondents' choice.

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

DELL

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 $P(A \cap B)$ is:

Select one:

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

[Next p](#)

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



Answered
at of
question

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

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 NetExam
Sri Lanka Institute of Information Technology

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

it170

NetExam
Sri Lanka Institute of Information Technology

5 answered out of 10 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

Finish attempt Time left 0:00:00

QUESTION 1 2 9 10 17 18

The image shows a computer monitor displaying a web-based examination system. The title bar of the browser window reads "NetExam". Below the title bar, the text "Sri Lanka Institute of Information Technology" is visible. The main content area of the page contains a math problem and a list of five multiple-choice options. The math problem states: "Consider the following probability function $P(X=x)=cx^2$; $x=3,4,5$, where c is positive constant. Find c." The list of options is as follows:

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

NetExam
Sri Lanka Institute of Information Technology

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

New

NetExam
Sri Lanka Institute of Information Technology

i20125066 Chandrasena A.

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

Next page

≡ Quiz navigation

Finish attempt ...
Time left 0:30:18
QUESTIONS

1	2	3
8	9	10
15	16	17

FEEDBACK

21



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ation

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](#)



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 p](#)



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.

 NetExam
Sri Lanka Institute of Information Technology

it1702194

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 0:28:0

QUESTIONS

1	2	3
9	10	11
17	18	19

FEEDBACK

21

 NetExam
Sri Lanka Institute of Information Technology

Question 15
Not yet answered
Marked out of 2.00
 Flag question

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

Select one:

- The team wins more than 5 football games
- The team wins less than 5 football games
- The team does not win any football 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](#)



Answered
Not
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 $P(A \cap B^C)$ is:

Select one:

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

[Next page](#)

FE
21

Question 12

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 $P(A \cap B)$ is:

Select one:

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

[Next page](#)

FEEDBACK
21

Question 13

Not yet answered

Marked out of 1.00

Flag question

 NetExam
Sri Lanka Institute of Information Technology

It20125066 Chandrasena A.P.M.

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](#)

Quiz navigation

Finish attempt ...

Time left 0:24:21

QUESTIONS

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

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

 Next

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](#)

The image shows a close-up of an Acer laptop keyboard. The keyboard is black with white lettering on the keys. The Acer logo is visible on the top center of the keyboard. The keys are standard layout, including letters, numbers, and special characters.

SLIIT

NetExam

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

Institute of Information Technology

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...
Choose...

 NetExam

Sri Lanka Institute of Information Technology

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](#)

The screenshot shows a computer screen displaying a software application for taking exams. The title bar at the top has a blue section on the right containing the text "R20160302 R". Below the title bar, there is a toolbar with several icons. The main window is titled "NetExam" and features the logo and name of "Sri Lanka Institute of Information Technology". A question box contains a math problem: "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?". Below the question, the text "Select one:" is followed by five options, each preceded by a radio button:

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

At the bottom right of the question box is a blue "Next page" button.

Moodle

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.
 $x > Q3 + 1.5 * (\text{Inter Quartile Range})$
 $x < Q1 - 1.5 * (\text{Inter Quartile Range})$

Is "18" an outlier? Yes
Is "145" an outlier? No

Next page

Finish attempt
Time left
QUESTION
1 2
8 9
15 16
FEEDBACK
21

acer

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 undergo this operation recover? (Don't use any approximation)

Select one:

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

Next

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

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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...

0.08392
0.9881
0.03351
0.57681
0.0116

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stion

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, 14.9, 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...
15.25
13.15
15.35
16.15
13.65
13.45
15.45
12.45
15.65

Lower bound Choose... ▾

Choose...
15.25
13.15
15.35
16.15
13.65
13.45
15.45
12.45
15.65

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Question 15
Not yet answered
Marked out of 2.00

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

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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

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



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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X |

X | ↻ | i | + | =

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16
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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.



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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 of the discrete variable X.

on

Select one:

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

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

Upper bound

Choose... ▾

- Choose...
- 15.35
 - 15.25
 - 13.15
 - 16.15
 - 13.65
 - 15.65
 - 12.45
 - 13.45
 - 15.45

Lower bound

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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

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



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