

Time left 0:16:14

Question 15

Not yet
answeredMarked out of
2.00Flag
question

Failure to reject significance of the regression hypothesis ($H_0: \beta_1 = 0$) is equivalent to concluding that there is no linear relationship between x and Y .

Select one:

☒ True☐ False

Question 16

Not yet
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2.00Flag
question

The _____ sum of squares measures the variability of the observed values around their respective treatment means

☒ a. treatment☐ b. error☐ c. interaction☐ d. total

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Quiz
naviga

Question 19

not yet
answered
marked out of
10

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question

Nine strips of fabric were randomly selected to study how this material deteriorates when buried in a landfill. Three of the strips were tested for strength at week 0, three were tested after being buried two weeks, and three were tested after being buried 4 weeks. A partial analysis of variance table is shown below.

Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F-value
Treatment	2	126.67	63.33	12.667
Error	24	76	3.17	
Total	26	226		

The mean squares for treatment is

مشاركة...

- ☐ a. 75
- ☐ b. None of the mentioned
- ☐ c. 12.667
- ☐ d. 50
- ☐ e. 28.25

إضافة إلى الصور

نسخ

Question 20

not yet
answered
marked out of
10

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question

A random sample has been taken from a normal distribution. Output from a software package follows:

Variable	N	Mean	SE Mean (standard error)	StDev (Standard deviation)
x	?	?	3.6515	20

The sample mean equals to:

22	23	24
25	26	

Finish attempt ...

The mean squares for treatment is:

- ☐ a. 75
- ☐ b. None of the mentioned
- ☐ c. 12.667
- ☐ d. 50
- ☐ e. 28.25

Question 20

Not yet answered

Marked out of 2.00

Flag question

A random sample has been taken from a normal distribution. Output from a software package follows:

Variable	N	Mean	SE Mean (standard error)	StDev (Standard deviation)	Sum
x	?	?	3.6515	20	30420

The sample mean equals to:

- ☐ a. 1014
☐ b. 1024
☐ c. 174.5
☐ d. 1033
☐ e. 1034

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📁 Data retention summary



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Question 17

Not yet answered

Marked out of 2.00

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A sample size of 50 yields 35 successes. If the null hypothesis $H_0: p = 0.4$, The z-score for a right tailed test.

- ☐ a. 4.33
- ☐ b. None of the mentioned
- ☐ c. 7.14
- ☐ d. 10.12
- ☐ e. 3.62

Question 18

Not yet answered

Marked out of 2.00

Flag question

When determining the sample size for a proportion for a given level of confidence and sampling error, the closer to 0.50 that p is estimated to be, the

- ☐ a. smaller the sample size required
- ☐ b. larger the sample size required
- ☐ c. sample size is not affected.
- ☐ d. effect cannot be determined from the information given
- ☐ e. None of the mentioned

Quiz
navig

1	2
4	5
7	8
10	11
13	14
16	17
19	20
22	23
25	26

Finish

Time left 0:10:09

Quiz
navigat

Question 19
Not yet
answered
Marked out of
1.00
Flag
Question

Nine strips of fabric were randomly selected to study how this material deteriorates when buried in a landfill. Three of the strips were tested for strength at week 0, three were tested after being buried two weeks, and three were tested after being buried 4 weeks. A partial analysis of variance table is shown below.

Variation	Degrees of Freedom	Sum of Squares	Mean Square
Treatment	-----	-----	-----
Error	-----	76	-----
Total	-----	226	-----

The mean squares for treatment is:

- ☐ a. 75
☐ b. None of the mentioned
☐ c. 12.667
☐ d. 50
☐ e. 28.25

Question 20
Not yet
answered
Marked out of
1.00
Flag
Question

A random sample has been taken from a normal distribution. Output from a software package follows:

Variable	N	Mean	SE Mean (standard error)	StDev (Standard deviation)
x	?	?	3.6515	20

The sample mean equals to:

- ☐ a. 1014

1 2
4 5
7 8
10 11
13 14
16 17
19 20
22 23
25 26
Finish

ENGINEERING STATISTICS -2

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Time left 0:07:37

Question 21Not yet
answeredMarked out of
2.00Flag
question

In testing hypotheses to compare the means of two populations, the two populations need to have same variances.

Select one:

☐ True☐ False**Question 22**Not yet
answeredMarked out of
1.00Flag
question

Nine strips of fabric were randomly selected to study how this material deteriorates when buried in a landfill. Three of the strips were tested for strength at week 0, three were tested after being buried two weeks, and three were tested after being buried 4 weeks. A partial analysis of variance table is shown below.

Variation	Degrees of Freedom	Sum of Squares	Mean Squares
Treatment	-----	-----	-----
Error	-----	76	-----
Total	-----	226	

the value of the F-statistic is:

☐ a. 0.169☐ b. 0.148

Flag question

Question 22

Not yet answered

Marked out of 1.00

Flag question

Select one:

☐ True

☐ False

Time left 0:07:24

Nine strips of fabric were randomly selected to study how this material deteriorates when buried in a landfill. Three of the strips were tested for strength at week 0, three were tested after being buried two weeks, and three were tested after being buried 4 weeks. A partial analysis of variance table is shown below.

Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F-value
Treatment	-----	-----	-----	-----
Error	-----	76	-----	-----
Total	-----	226	-----	-----

the value of the F-statistic is:

- ☐ a. 0.169
- ☐ b. 0.448
- ☐ c. 2.655
- ☐ d. None of the mentioned
- ☐ e. 5.920

7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	

Finish attempt ...

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Question 23

Not yet answered

Marked out of 2.00

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We use sample statistics to estimate population parameters.

Select one:

- ☐ True
☐ False

Question 24

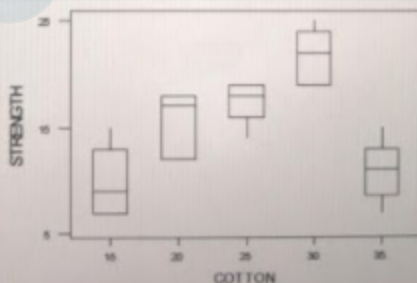
Not yet answered

Marked out of 2.00

Flag question

A manufacturer of synthetic fiber is interested in improving the tensile strength of the fiber. It is suspected that strength is related to the percentage of cotton in the fiber. A team of engineers responsible for the study decides to investigate five levels of cotton percentage: 15%, 20%, 25%, 30%, and 35%. Product engineers draw a comparative box plots of the cotton percentage. Use the box plot to determine which means are different.

Based on the figure below, which of the following sentence is correct:



- ☐ a. There are significant differences between all pairs of means except 20% and 25%.

Question 24

Not yet
answeredMarked out of
2.00Flag
question

A manufacturer of synthetic fiber is interested in improving the tensile strength of the fiber. It is suspected that strength is related to the percentage of cotton in the fiber. A team of engineers responsible for the study decides to investigate five levels of cotton percentage: 15%, 20%, 25%, 30%, and 35%. Product engineers draw a comparative box plots of the cotton percentage. Use the box plot to determine which means are different.

Based on the figure below, which of the following sentence is correct:



- ☐ a. There are significant differences between all pairs of means except 20% and 25%.
- ☐ b. There are significant differences between all pairs of means except 15% and 35%.
- ☐ c. There are significant differences between pairs of means 15% and 30%.
- ☐ d. There are significant differences between pairs of means 20% and 25%.
- ☐ e. There are significant differences between all pairs of means except 15% and 30%.



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Question 25

Not yet
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question

A company produces metal pipes of a standard length and weight. They tested its production quality and found that length of the pipes produced were normally distributed. In a sample of 41 pipes, the standard deviation is 2.3 cm. Engineers claim that the population standard deviation is less than 2 cm.

The value of the appropriate test statistic to test the hypothesis is equal to:

:

- ☐ a. 30.25
- ☐ b. 23
- ☐ c. 51.58
- ☐ d. 52.9
- ☐ e. None of the mentioned

Question 26

Not yet
answeredMarked out of
2.00Flag
question

Nine strips of fabric were randomly selected to study how this material deteriorates when buried in a landfill. Three of the strips were tested for strength at week 0, three were tested after being buried two weeks, and three were tested after being buried 4 weeks. A partial analysis of variance table is shown below. If $\alpha = 0.05$

Variation	Degrees of Freedom	Sum of Squares	M Squ

responsible for the study decides to investigate five levels of cotton percentage: 15%, 20%, 25%, 30%, and 35%. Product engineers draw a comparative box plots of the cotton percentage. Use the box plot to determine which means are different.

Based on the figure below, which of the following sentence is correct:



- 改善
- ☐ a. There are significant differences between all pairs of means except 20% and 25%.
- ☐ b. There are significant differences between all pairs of means except 15% and 35%.
- ☐ c. There are significant differences between pairs of means 15% and 30%.
- ☐ d. There are significant differences between pairs of means 20% and 25%.
- ☐ e. There are significant differences between all pairs of means except 15% and 30%.
- ☐ f. None of the mentioned



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- ☐ a. 30.25
- ☐ b. 23
- ☐ c. 51.58
- ☐ d. 52.9
- ☐ e. None of the mentioned

18	19	20
19	20	21
22	23	24
25	26	

Finish attempt ...

Question 26

Not yet
answeredMarked out of
2.00Flag
question

Nine strips of fabric were randomly selected to study how this material deteriorates when buried in a landfill. Three of the strips were tested for strength at week 0, three were tested after being buried two weeks, and three were tested after being buried 4 weeks. A partial analysis of variance table is shown below. If $\alpha = 0.05$

Variation	Degrees of Freedom	Sum of Squares	Mean Squares	F-value
Treatment	-----	-----	-----	-----
Error	-----	76	-----	-----
Total	-----	226	-----	-----

After Testing the hypothesis H_0 : No treatment effects, the results is:

- ☐ a. Fail to reject the null hypothesis
- ☐ b. Reject the null hypothesis

Finish attempt ...