

Time left 1:29:51

Question 1

Not yet answered

Marked out of 1.00

The summary statistics for a paired data set is provided below. Compute the standard error (SE) associated with \bar{x}_{diff} .

n_{diff}	\bar{x}_{diff}	s_{diff}
100	5.58	33.42

- ☐ a. 3.34
- ☐ b. 1.63
- ☐ c. 2.20
- ☐ d. 1.50

Question 2

Not yet answered

Marked out of 1.00

A random sample is selected from a near normal population with an unknown standard deviation. For a given sample size of 19 with $s=2.3$ and $\bar{x}=4.4$, find the Standard error (SE):

- ☐ a. 0.528
- ☐ b. 2.528
- ☐ c. 1.528
- ☐ d. 3.528

Question 3

Not yet answered

Marked out of 1.00

The summary statistics for a paired data set is provided below. Compute the T-statistics of \bar{x}_{diff} under the null condition that the actual mean difference is 0:

n_{diff}	\bar{x}_{diff}	S_{diff}
100	5.58	33.42

- ☐ a. 2.67
- ☐ b. 3.67
- ☐ c. 1.67

Question 4

Not yet answered

Marked out of 1.00

The summary statistics of a study between two variables (y and x) is provided below. Calculate the predicted value (\hat{y}) based on this data if $x = 100$ and $y = 160$:

S_y	9.41
S_x	10.37
R	0.666
\bar{x}	107.20
\bar{y}	171.14

- ☐ a. 102
- ☐ b. 116
- ☐ c. 167

Question 5

Not yet answered

Marked out of 1.00

Given the t-statistic of 2.485 and degree of freedom of 25, the p-value for a sample from an approximately normal population with unknown standard deviation is 0.020. Do we reject the null hypothesis at $\alpha = 0.005$?

Select one:

- ☐ True
- ☐ False

Question 6

Not yet answered

Marked out of 1.00

A random sample is selected from a near normal population with an unknown standard deviation. For a given sample size of 19 with $s=2.3$ and $\bar{x}=4.4$, for a 95% confidence interval ($t^*_{18} = 2.10$) what is the margin of error (ME)?

- ☐ a. 2.109
- ☐ b. 1.109
- ☐ c. 4.109
- ☐ d. 5.109

Question 7

Not yet answered

Marked out of 1.00

The summary statistics of a study between two variables (y and x) is provided below. Calculate the residual (e) based on this data if $x = 100$ and $y=160$:

S_y	9.41
S_x	10.37
R	0.666
\bar{x}	107.20
\bar{y}	171.14

- ☐ a. -7
- ☐ b. 8
- ☐ c. 7

Question 8

Not yet answered

Marked out of 1.00

The summary statistics of a study between two variables (y and x) is provided below. Calculate the slope (b_1) of the regression line based on this data.

S_y	9.41
S_x	10.37
R	0.666
\bar{x}	107.20
\bar{y}	171.14

- ☐ a. 0.604
- ☐ b. 0.811
- ☐ c. 1.604

Question 9

Not yet answered

Marked out of 1.00

The summary statistics of a study between two variables (y and x) is provided below. Calculate the R^2 of the regression line based on this data:

S_y	9.41
S_x	10.37
R	0.666
\bar{x}	107.20
\bar{y}	171.14

- ☐ a. 0.55
- ☐ b. 0.44
- ☐ c. 0.66

Question 10

Not yet answered

Marked out of 1.00

Given the ANOVA output below from JASP, what is the value of the F-statistics?

ANOVA

ANOVA - Attractiveness

Cases	Sum of Squares	df	Mean Square	F	p
FaceType	21.333	1	21.333	10.082	0.003
Residuals	97.333	46	2.116		

Note. Type III Sum of Squares

- ☐ a. 1.33
- ☐ b. 10.082
- ☐ c. 2.116

Question 11

Not yet answered

Marked out of 1.00

A random sample is selected from a near normal population with an unknown standard deviation. For a given sample size of 19 with $s=2.3$ and $\bar{x}=4.4$, construct the 95% confidence interval ($t_{18}^* = 2.10$).

- ☐ a. (1.29, 3.51)
- ☐ b. (5.29, 7.51)
- ☐ c. (3.29, 5.51)

Question 12

Not yet answered

Marked out of 1.00

The summary statistics of a study between two variables (y and x) is provided below. Interpret the intercept (b_0) of the regression line based on this data:

S_y	9.41
S_x	10.37
R	0.666
\bar{x}	107.20
\bar{y}	171.14

- ☐ a. for each unit increases in the explanatory variable x, we would expect the response variable y to increase on average by 0.604
- ☐ b. for the explanatory variable x with the value of 0, the response variable y is expected to be on average 106.39
- ☐ c. approximately 44% of the variation in the response variable is accounted for by the model (i.e. explained by the explanatory variable)

Question 13

Not yet answered

Marked out of 1.00

The summary statistics of a study between two variables (y and x) is provided below. Interpret the R^2 of the regression line based on this data:

S_y	9.41
S_x	10.37
R	0.666
\bar{x}	107.20
\bar{y}	171.14

- ☐ a. for each unit increases in the explanatory variable x, we would expect the response variable y to increase on average by 0.604
- ☐ b. for the explanatory variable x with the value of 0, the response variable y is expected to be on average 106.39
- ☐ c. approximately 44% of the variation in the response variable is accounted for by the model (i.e. explained by the explanatory variable)

Question 14

Not yet answered

Marked out of 1.00

The summary statistics for an unpaired data set is provided below. Compute the standard error (SE) associated with $\bar{x}_{group1} - \bar{x}_{group2}$.

	n	\bar{x}	s
Group 1	13	3.58	6.17
Group 2	13	-6.68	3.76

- ☐ a. 2.004
- ☐ b. 5.004
- ☐ c. 13.004

Question 15

Not yet answered

Marked out of 1.00

The summary statistics of a study between two variables (y and x) is provided below. Calculate the intercept (b_0) of the regression line based on this data:

S_y	9.41
S_x	10.37
R	0.666
\bar{x}	107.20
\bar{y}	171.14

- ☐ a. 120.39
- ☐ b. 99.40
- ☐ c. 106.39