Coursework

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❮ Homework - Test 3   Homework Test 4 ❯

Test 4
Exam in Test 4

Your final grade is

90.91/100, B+ (90.91%)

For more workflow details, see your Full history ❯

For the full assignment information, read the instructions ❯

You submitted this attempt **on time** on **Tuesday, April 11 at 2:26 PM**
You spent **35 minutes** taking the attempt

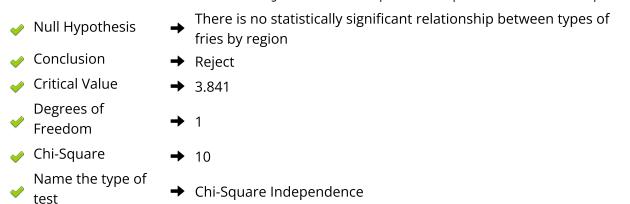Collapse all responses ❮

Section 1

24/24

1) MatchingQuestion (24pts) ❮

Match the answers for the appropriate analysis for the scenario below.

A major food manufacturer is concerned that the sales for its skinny French fries have been decreasing. As a part of a feasibility study, the company conducts research into the types of fries sold across the country to determine if the type of fries sold is independent of the area of the country. The results of the study are shown in the table below. Are fries and region of the country significant? HOV (p=.404), α=.05.

Type of Fries	Northeast	South
skinny fries	70	50
steak fries	20	40

You selected:

✅	Null Hypothesis	➔	There is no statistically significant relationship between types of fries by region
✅	Conclusion	➔	Reject
✅	Critical Value	➔	3.841
✅	Degrees of Freedom	➔	1
✅	Chi-Square	➔	10
✅	Name the type of test	➔	Chi-Square Independence

30.91/34

2) MatchingQuestion [1] (34pts) ⌃

Match the answers for the appropriate analysis for the scenario below.

Below you will the number of study minutes per student along with their mock ACT score. Use the data to answer the following questions for this research study.

Student	Study Minutes	Mock ACT Score
Demar	4	16
Derwin	14	17
Eden	25	15
London	32	19

You selected:

Prediction at 20 minutes	➔	16.86
Slope of the regression line	➔	0.063
Calculate residual at 25 minutes	➔	-2.2
Type of Graph Appropriate for Data	➔	Scatter Plot
What type of data is Mock ACT Score	➔	Quantitative
r	➔	0.46
Level of Measurement for Study Minutes	➔	Interval/Ratio
interpret r	➔	Positive and moderate relationship

Answer key:

Prediction at 20 minutes	➔	16.86
Slope of the regression line	➔	0.063
Calculate residual at 25 minutes	➔	-2.2
Type of Graph Appropriate for Data	➔	Scatter Plot
What type of data is Mock ACT Score	➔	Quantitative
r	➔	0.46
Level of Measurement for Study Minutes	➔	Interval/Ratio
interpret r	➔	Positive and moderate relationship

✓ Interpret the residual at 25 minutes	➡ Overestimated	Interpret the residual at 25 minutes	➡ Overestimated
✗ xbar	➡ 17.2	xbar	➡ 18.75
✓ Name two variables for this research	➡ Study Minutes; Mock ACT Score	Name two variables for this research	➡ Study Minutes; Mock ACT Score

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3) MatchingQuestion [2] (24pts) ⌃

Matching the following correlation and regression terms.

You selected:

✓ X and Y vary indirectly	➡ Negative slope
✗ Positive Residual	➡ Overestimated
✓ Linear Equation	➡ Slope and intercept
✗ Negative residual	➡ Underestimated
✓ Correlation Coefficient	➡ Strength and Direction
✓ Outlier	➡ Greater than two standard deviations
✓ X and Y vary directly	➡ Positive slope
✓ Homoscedasticity	➡ Equidistant from line

Answer key:

X and Y vary indirectly	➡ Negative slope
Positive Residual	➡ Underestimated
Linear Equation	➡ Slope and intercept
Negative residual	➡ Overestimated
Correlation Coefficient	➡ Strength and Direction
Outlier	➡ Greater than two standard deviations
X and Y vary directly	➡ Positive slope
Homoscedasticity	➡ Equidistant from line

18/18

4) MatchingQuestion [3] (18pts) ⌃

Match the answers for the appropriate analysis for the scenario below.

Ciara, an ornithologist, has 2 bird feeders at separate locations. She wonders if birds are equally likely to visit each of the feeders. She recorded data for a sample of 350 visits.

Feeder	#1	#2
Observed Visits	165	185

You selected:

✅ Chi-Square	➡ 1.14

✔ Name the type of test   ➜ Chi-Square Goodness of Fit

✔ What is the critical value at 5% error?   ➜ 3.84

✔ Degrees of Freedom   ➜ 1

✔ What are the expected values for each feeder? ➜ 175

✔ Conclusion   ➜ Fail to Reject

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