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Question 2

Using the dataset below, find the correlation coefficient between time spent studying and exam grade.

Minutes Spent Studying	Exam Grade
30	74
45	68
180	87
95	90
130	94
140	84
30	92
80	88
60	82
110	93
0	65
80	90

(6/6 points)

2a. What is the correlation coefficient based on the data? (*Round to 3 decimal places.*)

Answer: .597

2b. Approximately what percentage of the variation in exam scores can be explained by the amount of time that each student studied? (*Report to whole number **without a % sign.***)

Answer: 36

2c. Create a scatterplot of the data (exam grades and time spent studying). What is the value of the outlier (the student that got a high grade but didn't study very long)?

X =

Answer: 30

Y =

Answer: 92

2d. When the outlier is removed, what is the new value of r ? (Round to 3 decimal places.)

Answer: .737

2e. How did the outlier impact our efforts to assess the relationship between time spent studying and exam grades?

☐ The outlier caused the relationship to look stronger than it really is.

☒ The outlier caused the relationship to look weaker than it really is. 

☐ The outlier did not significantly effect the relationship.

Check

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