





Bookmarks

- ▶ Important Pre-Course Survey
- ▶ Contact Us
- ▶ How To Navigate the Course
- ▶ Discussion Board
- ▶ Office Hours
- ▶ Week 1: Introduction to Data
- ▶ Week 2: Univariate Descriptive Statistics
- ▼ **Week 3: Bivariate Distributions**


**Readings**

Reading Check due  
Mar 15, 2016 at 18:00  
UTC 

**Lecture Videos**

Comprehension Check  
due Mar 15, 2016 at  
18:00 UTC 

**R Tutorial Videos****Pre-Lab**

Pre-Lab due Mar 15,  
2016 at 18:00 UTC 

**Lab**

Week 3: Bivariate Distributions &gt; Problem Set &gt; Question 2



Bookmark

## 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

(5/6 points)

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



Answer: .597

**0.597**

Lab due Mar 15, 2016  
at 18:00 UTC

**Problem Set**

Problem Set due Mar  
15, 2016 at 18:00 UTC

► Week 4:  
Bivariate  
Distributions  
(Categorical  
Data)

► Week 5: Linear  
Functions

2b. Approximately what percentage of the variation in exam scores can be explained by the amount of time that each student studied? (*Round 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.

*You have used 1 of 1 submissions*



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