

Notes 9.1 Correlation

I. Correlation

- A correlation is a _____.
- The data can be represented by _____ where x is the _____ or _____ variable, and y is the _____, or _____ variable.
- One way to determine whether a linear correlation exists between two variables is to use a _____.
- Draw an example of each type of correlation.

Example 1:

Notes 9.1 Correlation

The budgets and worldwide grosses of 15 of the most expensive 20th Century Fox Movies are shown in the table below.

Sketch a scatterplot of the data. Describe the relationship.

Budget, x (millions)	200	150	125	125	115	115	115	110	110	110	105	102	100	100	100
Gross, y (millions)	1835.4	459.4	406.4	542.7	924.3	656.7	848.5	571.1	211.4	150.5	348.8	358.8	365.3	359.1	249.0

II. Correlation Coefficient

- The correlation coefficient is a _____ of the _____ and the _____ of a _____ between two variables.
- The symbol _____ represents the sample correlation coefficient.
- The range of the correlation coefficient is _____.

III. Correlation and Causation

The fact that two variables are strongly correlated does not imply _____

_____.

If there is a significant correlation between two variables, list the other possibilities that should be considered:

1.

Notes 9.1 Correlation

2.

3.

4.

Assignment: new: pgs 507 - 509/ 5 - 8, 9 - 14, 16 - 18 (For 16 - 18 parts a & c only)

~~old: pgs 427 - 429/ 5 - 10~~