Checking Correlations

It is sometimes helpful to check the correlations of the different independent (X) variables to each other. This is useful in identifying multi-collinearity - something to avoid in modeling.

Using the data for Duffy Industries, answer the following questions. This is a CSV file and you may use spreadsheets or any other statistical package.

Correlations of Independent Variables

0 points possible (ungraded)
Answer the following questions using the Duffy Industries data.

a. What is the correlation between distance and leadtime? Enter a number between -1.000 and 1.000.
Enter your answer in decimal form using three decimal places. For example, if your answer is 0.2324, you should enter .232 in the box below.

0.005 0.005

0.005

b. What is the correlation between distance and weight? Enter a number between -1.000 and 1.000.
Enter your answer in decimal form using three decimal places. For example, if your answer is 0.2324, you should enter .232 in the box below.

0.119 0.119

0.119

c. What is the correlation between Trailer length and weight? Enter a number between -1.000 and 1.000.
Enter your answer in decimal form using three decimal places. For example, if your answer is 0.2324, you should enter .232 in the box below.

0.006 0.006

0.006

Explanation
These can be calaculated using the =CORREL(array1, array2) function in any spreadsheet.
a =CORREL(Dist, LdTime) = 0.00463 ~0.005
b =CORREL(Dist, Wgt) = 0.11904 ~0.119
c =CORREL(TrlLng, Wgt) = 0.00641 ~0.006
The take away here is that these independent variables do not seem to be correlated. This is a good thing!

Submit You have used 1 of 3 attempts

Answers are displayed within the problem