NAME:

Project 6: Students' Heights, Lengths of Feet and Forearms

Please use the following to answer the questions for Project 6. Make sure to answer the question in complete sentences with proper grammar and spelling. This document should be saved as a PDF and submitted online.

Questions for Task 1:

Double click where it says "Name:" at the top of this document and type your name there.

A) Is this numerical or categorical data? If it is numerical, is it discrete or continuous?

B) Copy and Paste your scatterplot from Excel here.

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C) It appears that the data has two outliers. What are the outliers (as ordered pairs)?

D) Pick one of the outliers. Write a sentence explaining what it means in the context of the data.

E) Copy and Paste the scatterplot with the linear regression line, equation and R^2 value here.

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F) Using the R^2 value from the chart calculate the **r-value.** What is the r-value?

G) What does the r-value tell us about the strength of the association?

H) What is the direction of the association?

I) In context of the problem, what do the answers to questions F, G, H, and I tell us about the data?

J) You were asked to remove two outliers from the data before reaching these conclusions. Do you think it was reasonable to do so? Why or why not?

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Questions for Task 2:

A) Is this numerical or categorical data? If it is numerical, is it discrete or continuous?

B) Copy and Paste your scatterplot from Excel here.

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C) Does the data have any outliers? If so, list them as ordered pairs.

D) Do you think the data is roughly linear? Why or why not?

E) What is the r-value and what does it tell us about the strength of the association?

F) What is the direction of the association?

G) In context of the problem, what do the answers to questions C, D, E, and F tell us about the data?

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H) What is the slope of the line that Excel found for the Height vs. Foot Measurement data?

I) What is the y-intercept of the line that Excel found for the Height vs. Foot Measurement data?

J) Considering your answer to question I does model breakdown occur? Why or why not?

K) Compare the R-values you found in Task 1 Question G and Task 2 Question E. Write a sentence that explains what this tells you about the relative strengths of the association of the two data sets.