1. Go to the board and measure & record your height and arm span. Height \_\_\_\_\_\_ Span \_\_\_\_\_\_\_
   1. On the back, use the graph to create a scatterplot. Dress the graph up proper! Be sure to scale appropriately, label axis, and title.
   2. Under the graph **describe in full sentences the a) Direction, b) Strength, c) Form, and d) Outliers and Influential Points. Use Statistical Terms and put in context.**
   3. **Estimate the “r” value. \_\_\_\_\_\_\_\_\_\_\_\_\_**
2. What did you use for the Explanatory Variable and why?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What about the Response Variable?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Open a new document on the Nspire handheld. Add a Spreadsheet and list page. Enter the data from the class into the spreadsheet. Check the data for errors or abnormalities.**

1. Open a “Calculator” page. Do a Statistics Calculation of a two variable. Record the values below:

= \_\_\_\_\_\_\_ Sx = \_\_\_\_\_\_\_ = \_\_\_\_\_\_\_ Sy = \_\_\_\_\_\_\_ r = \_\_\_\_\_\_\_ r2 = \_\_\_\_\_\_\_\_

1. What does r2 mean? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(HINT☺ Page 179 in TPS 4ed.)
2. Calculate the value of **a** and **b: (See page 172 for the formula: TPS 4ed)**

**a = \_\_\_\_\_\_\_\_\_\_\_\_\_ b= \_\_\_\_\_\_\_\_\_\_\_\_\_**

1. Use the answers to the above questions to find the equation for the LSRL.

ŷ = \_\_\_\_ + \_\_\_\_\_\_\_\_x

1. Explain the difference between y, y-bar, and y-hat.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Use the LSRL line to predict my wife’s arm span. My wife is 61.5” tall.

***Show your work and answer in sentence for in context with statistical terms.***

1. Omar is 80” tall. Predict his arm span.

***Show your work and answer in sentence for in context with statistical terms.***

**Add a Data & Statistics Page and use the Analyze submenu to find the LSRL (regression)**

1. What is the equation you found from this method? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**If this equation is significantly different from your answer in #8, double check your work**

1. Explain in your terms any differences. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What other relationships (do not include either height nor arm span) can be used to explore the association between two variables?
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_ vs. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_ vs. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

EXTRA CREDIT:

Explore the relationship of one of the situations you gave for the last question.