

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## **The Spaghetti Line: Estimating the Line of Best Fit**

Background:

Arm span and height data of students at a large high school were collected.

Your team will be assigned a plot of a subset of these data. Using the plot, investigate the statistical question:

**Is there are relationship between a person's arm span and height?**

Instructions:

1. Once your team has been assigned a plot, tape or glue it to poster paper.
2. Using a strand of spaghetti, position the spaghetti to simulate a line that best fits all the data points.
3. Tape or glue the spaghetti line to the plot.
4. Use the grid lines to find two points that go through the line. Identify the points using their coordinates.
5. Find the slope of the line.
6. Find the point in your line where the x-value equals zero. What is the y-value? This is your y-intercept.
7. Write the equation of your spaghetti line on your plot.
8. Use your equation to make a prediction.
9. Answer the statistical question based on your plot.

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### Instructions for teacher:

Cut out each plot and assign one to each team. A plot may be used more than once.

