## 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 investigative question:

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

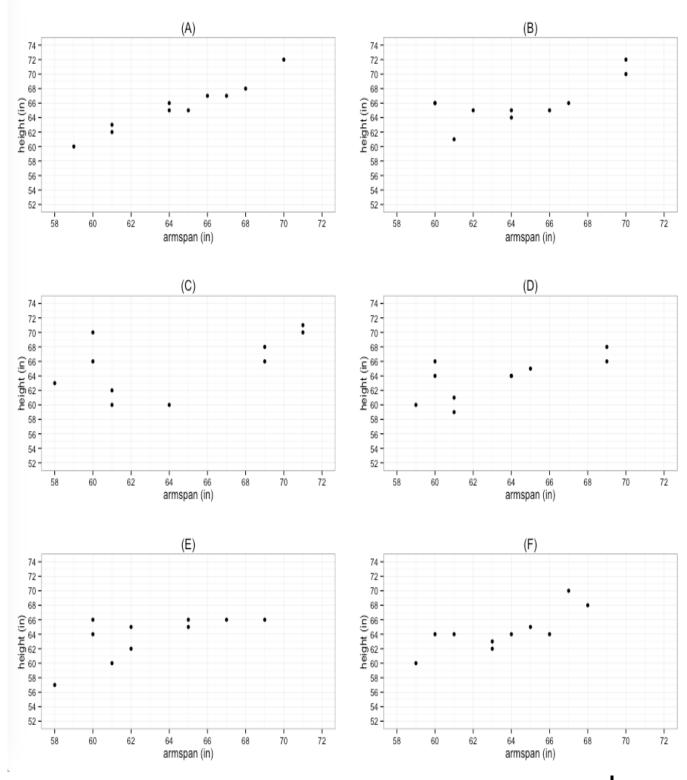
Instructions:

- 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 investigative 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.



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