

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

# Become a Statistician



Follow the instructions to step into the shoes of a statistician, from designing a statistical question, to data collection, to data analysis, and beyond.

1. Identify a **quantitative** attribute.

\_\_\_\_\_

Write a statistical question that can be asked to gather data about that attribute.

\_\_\_\_\_

\_\_\_\_\_

2. Explain who will be included in your sample and how you will collect your data.

A cartoon superhero character with brown hair, wearing a blue suit with a red cape and a shield emblem on the chest. He is flying through the air with a determined expression.

**Preview**  
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3. Arrange your raw data into a line (dot) plot or histogram.



Describe the distribution's shape and features. What do they mean?

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4. Summarize the data using statistical analysis.

What is the range?

What is the mode?

(If there is none, write **N/A**.)

What is the mean?

What is the median?

If your mean and median are different, which do you think is the better measure



Q1 = \_\_\_\_\_ Q2 = \_\_\_\_\_ Q3 = \_\_\_\_\_

What is the interquartile range?

Organize your data in a box-and-whisker plot using the information above.

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6. Find the mean absolute deviation.

(If you use additional paper for finding the initial absolute deviations, attach it to the report.)



7. Use the information from your analysis and displays to write a detailed answer to your original question.

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8. Consider your sample. Do you think your results and answer would change if you asked different people? More people? Why or why not?

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A cartoon superhero with brown hair, wearing a blue suit with a red cape and a red mask. He is flying through the air, leaving a white trail behind him. On his chest is a blue shield with the letters 'STW' in white.

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