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LAB 1B: Get the Picture?
Response Sheet
Directions: Record your responses to the lab questions in the spaces provided.
Where'd we leave off ...
Variable Types

- Is height a numerical or categorical variable? Why?
- Is gender a numerical or categorical variable? Why?
- List either the different categories or what you think the measured units are for height and gender.


## Which is which?

Use the code's output to help you complete the following:

- Write down 3 variables that you think are categorical variables and why.
- Write down 3 variables that you think are numerical variables and why.


## Data Structures

- What information does the str function output?

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- Were you able to correctly guess which variables were categorical and numeric? Which ones did you mislabel?


## Visualizing data

- Which function, either bargraph or histogram, is better at visualizing categorical variables? Which is better at visualizing numerical variables?

We have options

- Describe the distribution of weight. Make sure to describe the shape, center and spread of the distribution.
- How did including the option nint $=3$ change the histogram?
- Does setting nint = 3 impact how you would describe the shape, center and spread?
- Try other values for nint. What value produced the best graph? Why?
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How often do people text \& drive?
Make a graph that shows how often people in our data texted while driving.
- What does the $y$-axis represent?
- What does the x -axis tell us?
- Would you say that most people never texted while driving? What does the word most mean?
- Approximately what percent of the people texted while driving for 20 or more days? (Hint: There's 13677 students in our data.)

Does texting and driving differ by gender?

- Write a sentence explaining how boys and girls differ when it comes to texting while driving.
- Would you say that most girls never text and drive? Would you say that most boys never text and drive?

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- How did including the groups argument in your code change the graph?

Do males and females have similar heights?

- Can you use this graphic to answer the question at the top of the slide? Why or why not?
- Is grouping numeric values, such as heights, as helpful as grouping categorical variables, such as texting \& driving?

Do males and females have similar heights?, continued

- Do you think males and females have similar heights? Use the plot you create to justify your answer.

On your own:

- Choose one variable from the cdc data, make a graph, and use the graph to describe how drive_text use differs with this variable.

