

Name _____

Date _____

LAB 1A: Data, Code & RStudio *Response Sheet*

Directions: Record your responses to the lab questions in the spaces provided.

Welcome to the labs!

So let's get started!

- **Describe the data that appeared after running `View(cdc)`:**

- ***Who* is the information about?**

- **What sorts of information about them was collected?**

Data: Variables & Observations

- **Based on the data, describe a few characteristics about the first observation.**

- **What does the first column tell us about our observations?**

Uncovering our Data's Structure

- **How many students are in our `cdc` data set?**

- **How many variables were measured for each student?**

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Type the following commands into the console

- Which of these functions tell us the number of observations in our data?
- Which of these functions tell us the number of variables?

First Steps

Syntax matters

- Run the following commands and write down what happens after each. Which does R understand?

R's most important syntax

Syntax in action

- Which one of these plots would be useful for answering the question: *Is it unusual for students in the CDC dataset to be taller than 1.8 meters?*
- Do you think it's unusual for students in the data to be taller than 1.8 meters? Why or why not?

On your own:

- What is *public health* and do we collect data about it?

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- How do you think our data was collected? Does it include every high school aged student in the US?

- How might the CDC use this data? Who else could benefit from using this data?

- Write the code to visualize the distribution of weights of the students in the CDC data with a histogram. What is the *typical* weight?

- Write the code to create a bargraph to visualize the distribution of how often students ate fruit. About how many students did not eat fruit over the previous 7 days?