

Name \_\_\_\_\_

Date \_\_\_\_\_

## LAB 2A: All About Distributions Response Sheet

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

In the beginning ...

How to talk about data

Let's begin!

- Write down the names of the 4 variables that contain the point-totals, or *scores*, for each personality color.
- Write down the names of the variables that tell us an observation's *introvert/extrovert* designation and whether they are involved in *sports*.
- How many variables are in the data set?
- How many observations are in the data set?

Estimating centers

- Which values came up the most frequently? About how many people in your class had a score similar to yours?
- What, would you say, was a *typical* score for a person in your class for your predominant color? How does your own score for this color compare?

Means and medians

- Use a similar line of code to calculate the median value of *your* predominant color.
  - Are the mean and median roughly the same? If not, use the dotPlot you made in the last slide to describe why.

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## LAB 2A: All About Distributions *Response Sheet*

### Estimating Spread

- Look at the spread of the scores from the mean score then complete the sentence below:
  - *Data points in my plot usually fall within \_\_\_\_\_ units of the center.*

### Mean Absolute Deviation

- How close was your estimate of the spread for your predominant color (from the previous slide) to the actual value?

### Comparing introverts/extroverts

- Describe the shape of the distribution of scores for the extroverts. Do the same for the introverts.
  
- Do introverts and extroverts differ in their typical scores for your predominant color?
  
- Based on the MAD, which group (introverts or extroverts) has more variability for your predominant color's scores?

### On your own

- Perform an analysis that produces *numerical summaries and graphs*.
  
- Then, write a few sentence interpretations that addresses this statistical question and considers the *shape, center and spread* of the distributions of the graphs you create.