Lab 2A: All About Distributions
Response Sheet

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

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 *birth gender* and whether they participated in playing *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?

Name: Date:

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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.

Comparing birth_genders

- Do males and females differ in their typical scores for your predominant color? Answer this statistical question using your `dotPlot`.

- Assign the mean values a name. Then place the name into the `diff()` function to calculate the difference. How much more/less did one birth gender score over the other for your predominant color?

Estimating Spread

- Look at the spread of the dotPlot you made for your predominant color then fill in the blank:

    Data points in my plot will usually fall within _____ units of the center.

- Which birth gender, if either, seems to have values that are more spread out from the center?

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Mean Absolute Deviation

•   Based on the MAD, which birth gender has more variability for your predominant color's scores?

•   Does this match the answer you gave for the last question in the previous slide?

On your own

•   Perform an analysis that produces *numerical summaries* and *graphs*.

•   Then, write a few sentence interpretations that address this statistical question and consider the *shape*, *center,* and *spread* of the distributions of the graphs you create.