

Name(s): \_\_\_\_\_

## DATA 101 Assignment 2: Statistics and Data

Work in teams of 2

**Instructions.** Answer the following questions using the linked datasets and activities. Always note the source of your information when applicable. Write your responses in the spaces provided and show your work.

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1. Complete this brief survey about your interests: <https://forms.gle/ZG3U1yeCWdbbbNCe6>.
2. Complete the activity about Johann Sebastian Bach's works from Week 2's course slides on Github, page 6. Write your answers in the space provided below.
3. Go to [tidy tuesday](#)'s repository. Find a dataset you are interested in. Write or paste below the dataset in a spreadsheet format, including the first 5 rows. Why did you pick this dataset, and what makes it interesting to you? What are the units of the dataset? (Recall: the unit of a dataset is the object or subject we took measurements from.)

4. Go to <https://enrollment.streamlit.app>. Find the information below.
- (a) What was the course with the highest enrollment in Althouse 201 and when?
  - (b) What was the course with the highest enrollment in the Althouse building and when?
  - (c) What was the course with the highest enrollment that I taught and when?
5. In each case determine whether the variable is categorical or numerical. If the variable is numerical, state whether it is discrete or continuous.
- (a) The number of people entering the post office between 1pm and 3 pm on Monday
  - (b) The numbers on the uniforms of a soccer team.
  - (c) The length of time to swim 50 yards.
  - (d) The brand of phone purchased by a customer.
  - (e) Credit card numbers.
6. Below are the numbers of billionaires from five different states (consider this a sample of states) in the Northeast (according to *Forbes.com*).

State	Billionaires
New York	67
Connecticut	11
Pennsylvania	7
Massachusetts	7
New Jersey	5

- (a) Compute the mean number of billionaires. Show your work.
- (b) Compute the standard deviation (by hand and show your work) of the number of billionaires (round to the nearest tenth).
- (c) Which of the given numbers contributes the most to the standard deviation? Why?