

# What Lab 01: By the Numbers

## Data 8 Discussion Worksheet

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Welcome to your first Data 8 lab! Answer the following questions to the best of your ability. Complete the worksheet with one other partner, and please make sure that both of you agree on each answer before moving on.

1. Which of the following numbers is the closest to the average size of all Berkeley classes in the 2020-2021 academic year?

30    40    **50**    60    70    80    90

Answer: 50, the actual average was 51.5 . It was 49.4 in the 2019-2020 academic year, 48.2 in the 2018-2019 academic year, 48.1 in the 2017-2018 academic year, and 44.5 in the 2016-2017 academic year. [Source](#) *\*Note- class size is calculated by counting each section offered in a class and lecture as a class, so Data 8 would be one 1600 person class, and ~54 30 person classes.*

2. In the 2020-2021 academic year, close to half of all undergraduate degrees at Berkeley were awarded to students in the 10 largest major programs. The top five (in decreasing order of number of degrees awarded) are L&S Computer Science, Economics, Data Science, EECS and Political Science. What are the next five? How might you figure this out?

Answer: Business Administration (392), Molecular and Cell Biology (380), Sociology (357), Psychology (305), Applied Math (276). The number of students in the top five largest programs are as follows: L&S CS (802), Econ (760), Data Science (620), EECS (516), Poli Sci (496). [Source](#)

To arrive at this, think about the people you've interacted with, live with in the dorms, etc. Also, think about class sizes – what majors have particularly large lectures? Remember, there is no purely correct approach here!

3. “Life expectancy at birth” (LEB) measures roughly how many years a newborn baby is expected to live, and is a commonly used metric to quantify the health of a population. What two states would you expect to have the highest LEBs among all states in the US?

Answer: Hawaii (81.3) and California (80.9), but there is some uncertainty in these predictions. Connecticut and Minnesota are at 80.8.

4. Picking from the list of numbers below, fill in the numbers which you expect to be the closest to the LEB of the United States as well as the world.

68	70	72	74	76	78
United States_____			World_____		

Answer: USA 78, World 72