Data 100 **(Principles and Techniques of Data Science)**

Disc 2 Bonus Questions

Term: **Spring 2020** *Name:*

Problem Bonus - from Short Quiz

Consider a group of 20 students at Berkeley:

- 2 of them are currently freshmen.
- 12 of them are currently sophomores.
- 6 of them are currently juniors.

Part I

If we draw a simple random sample of 5 students and **only require 3 of them to be sophomores**, while the rest of the 2 can be both freshmen, both juniors, or one of each, what is the probability of drawing such a sample?

Part II

Same setting, but this time, if we want to draw a simple random sample that contains **3 students from 1 particular grade** and **2 students from a different grade**, what is the probability of drawing such a sample?