

# Homework 4

Math 105

Due July 10th at 11:59 PM

## Textbook Exercises

**3.2:** 1, 2, 3, 5, 7, 9, 11, 13, 15, 16, 17, 19, 21, 23

**3.3:** 1, 3, 5, 11, 13, 15, 17, 19, 21, 23

**Exercise 1:** Eight people sit down in a row. Of the eight, two are wearing hats and do not want to sit next to one another. Using techniques from the previous homework, find the probability that a random ordering of the people does not contain the two hat-wearers next to one another.

**Exercise 2:** On the previous homework, you found the numbers of people with certain operating systems on their computers. Draw out the completed Venn diagram again, and find the probability that a randomly chosen person from the survey:

- a) has both a macOS and Windows computer.
- b) does not have a linux computer.
- c) has no computer at all.
- d) has a macOS, Windows, and Linux computer.