Name:_____ Date:_____

Practicum
Win Win Win

The California lottery has a game called the *Daily 3*.

- It consists of 3 numbers between 0 – 9 that are drawn daily.
- The numbers are drawn *with replacement.*
- Winners are usually awarded a couple hundred dollars.
- To win the maximum amount of money, players must correctly choose the numbers that are drawn, in order.

Based on what you learned in *Lab 2C* and *Lab 2D* (*Which song plays next?* and *Queue it up!)* and using the rules of the *Daily 3*, you need to:

1. Write down the code to correctly simulate the *Daily 3* once.
2. Use your code to simulate the *Daily 3* 500 times.
3. Compute the estimated probability of getting the first 2 numbers of the *Daily 3* correct.
4. Should the estimated probability of correctly guessing the last 2 numbers of the *Daily 3* be less than, the same as, or more than guessing the first 2 numbers? Why?
5. In teams of 4:
    a. Each team member chooses 3 numbers for the *Daily 3*.
    b. Each team member simulates the *Daily 3* game 500 times.
    c. Within your group, combine the team simulation estimates to estimate the probability of winning the *Daily 3*.
6. Write and submit a one-page report. Your report should include the code.