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## Practicum <br> 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 3500 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.
