Final due Dec 14, 2022 07:30 +08

Problem 3

20/20 points (graded)

You have a bucket with 4 red balls and 4 green balls. You draw 3 balls out of the bucket. Assume that once you draw a ball out of the bucket, **you don't replace it**. You draw 3 balls.

Write a Monte Carlo simulation that meets the specifications below. Feel free to write a helper function if you wish.

```
def drawing_without_replacement_sim(numTrials):
    '''
    Runs numTrials trials of a Monte Carlo simulation
    of drawing 3 balls out of a bucket containing
    4 red and 4 green balls. Balls are not replaced once
    drawn. Returns a float - the fraction of times 3
    balls of the same color were drawn in the first 3 draws.
    '''
    # Your code here
```

Paste your entire function (including the definition) in the box.

Restrictions:

- Do not import or use functions or methods from `pylab`, `numpy`, or `matplotlib`.
- Do not leave any debugging print statements when you paste your code in the box.

```
# Paste your code here
def drawing_without_replacement_sim(numTrials):
    '''
    Runs numTrials trials of a Monte Carlo simulation
    of drawing 3 balls out of a bucket containing
    4 red and 4 green balls. Balls are not replaced once
    drawn. Returns a float - the fraction of times 3
    balls of the same color were drawn in the first 3 draws.
    '''
    # Your code here
    counter = 0
    for i in range(numTrials):
        bucket = ['R', 'R', 'R', 'R', 'G', 'G', 'G', 'G']
        picks = []
        for j in range(3):
```

Press ESC then TAB or click outside of the code editor to exit

Correct

Test results

CORRECT

See full output

See full output

Submit You have used 1 of 10 attempts

✔ Correct (20/20 points)