

UofSC Mathematics' Problem of the Month

September 2021

Press Your Luck

In a certain dice game, a player scores the total of a series of rolls of a six-sided die, provided a one is never rolled. The player is allowed to roll as many times as they like and stop whenever they like. What is the probability that they will score 6 or more points in a single turn if that is their goal?

- **First place will get \$15 and second place will get \$10.** Correct solutions for each problem will also be acknowledged in the weekly Mathematics Newsletter.
- Solutions will be judged primarily on correctness, clarity of work, and speed of submission. The highest ranking students will receive the prizes for that month.
- Submit your solutions to Dr. Dunn at dunnsm@math.sc.edu before September 30th at 11:59 pm.
- Answers should be given in the form of mathematical proofs unless otherwise stated.
- Type or write your solution clearly and show all of your work. This should be your solution, and not a solution posted online or copied from another source.
- You must be an undergraduate enrolled in coursework at USC.