Week #10 Fall 2023

Problem
of the Week

Last week, the game was to use the roll above and see how close you could get to 100 without going over by using the numbers in expressions with operations and grouping. It was very popular, and many solutions were provided with the ability to get 100 exactly. This week, I challenge you to find the smallest number of dice that would be needed to be rolled in order to get 100 exactly. After determining the minimum number of dice, the points awarded this week will be based on the number of solutions you can provide with the number of dice found. Last week's problem is below for reference.

You are playing a game with dice. Each time you roll the dice, you are allowed to use the rolled numbers in a mathematical expression to earn points. You may use any operation (addition, subtraction, division, multiplication), use the numbers as exponents, and use grouping with parentheses. The goal is to get as close to 100 without going over. If you roll the roll above, how close can you get?

Undergraduates may submit solutions to the Mathematics Department office, 1150 FAB **or** by email to mathpow@wayne.edu by noon 12/5/2023. Include your name, ID number, and whether you have completed Math 2030 (or higher). For more information go to https://clas.wayne.edu/math. Solutions will be posted online and throughout the math department after the deadline.