

Week #4 Winter 2023



Problem of the Week



This week we will play a little game. You get to go first. There are 54 “beans” on my desk. During your first turn you may as little as 1 bean and as many as 53 beans. From then on, when it is my turn I may take as little as 1 bean and as many as double the amount of beans you just took. When it is your turn, you may do the same: take as little as 1 bean and as many as double the amount of beans I just took. The person that takes the last bean wins. For the problem of the week, you must beat me. The catch is that the problem of the week points will be awarded to the student(s) who take the highest number of beans on their first turn and still win the game.

Undergraduates may submit solutions to the Mathematics Department office, 1150 FAB **or** by email to waynepotw@gmail.com by noon 2/21/2023. 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.