

Week #10 Winter 2023



# Problem of the Week



You would like to make some nesting boxes (boxes that sit inside boxes) that hold materials. If largest box is not allowed to be larger than 8 inches by 8 inches by 8 inches, how much total volume will your boxes be able to collectively hold if the wood that you use is  $\frac{1}{4}$  of an inch thick? (Assume that your boxes do not need lids and that when holding material, you have taken them out of nesting position)

Undergraduates may submit solutions to the Mathematics Department office, 1150 FAB **or** by email to [waynepotw@gmail.com](mailto:waynepotw@gmail.com) by noon 4/11/2023. 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.