

Problem of the Week    Week 13, Due November 25th 11:59pm    NAME: \_\_\_\_\_

NAU Email: \_\_\_\_\_

Please write clean, neat and complete solutions to the problem in order to receive full credit. Your job is to convince me, or really anybody who reads this document, that you understand the problem and are able to communicate what you are thinking. Please submit your solutions through Gradescope (<https://www.gradescope.com>) by the indicated deadline. You might need to create an account with your NAU email. To enroll in the Problem of the Week course use entry code: NYZ56P. Good luck and have fun!

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PROBLEM.

Suppose we know that  $\sqrt{a\sqrt{a\sqrt{a}}} = b$ , where  $a$  and  $b$  are integers and  $a, b > 1$ . Find the minimum value of  $a + b$ .