

## Problem of the Week

Week 10, due Nov 3th 11.59pm

NAME: \_\_\_\_\_

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

Instructor: \_\_\_\_\_

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 about. 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 into the Problem of the Week course use entry code: NYZ56P. Good luck and have fun!

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PROBLEM. Find real numbers  $x$  and  $y$ , such that

$$\sqrt{x-1801} + \sqrt{y-1860} = 2 - \frac{1}{\sqrt{x-1801}}$$

*Hint: What is the smallest value of  $x + \frac{1}{x}$ ?*

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