



MATH PROBLEM OF THE WEEK

Fall 2025

Problem 6

Find the smallest x such that $x^2 + xy = 312$ and $xy + y^2 = 264$. Justify your answer.

We welcome solutions from everyone. The undergraduate participant from the NMSU main campus with the most correct solutions at the end of the semester will receive an award of \$500.

Solutions must be mathematically rigorous and originally obtained by the participants. Participants will be notified if their solutions are correct within a week.

Deadline: Monday, November 3, 10 am

Next problem will be posted on November 3

Send solutions to: mathpotw@nmsu.edu

More information at: <https://math.nmsu.edu/activities/math-problem-of-the-week.html>