

PROBLEM OF THE WEEK 24

Due Wednesday, April 14 at 5:00 pm

Question. Let $ABCD$ be a trapezoid with parallel sides of $|AB| = 12$ and $|CD| = 4$. A point M is chosen between A and D and a point N is chosen between B and C so that MN is parallel to AB and CD . Find the length of MN if the trapezoids $ABNM$ and $MNCD$ have the same area.

- All answers should be clearly explained. Submit it to the Math/Stat Office, AMB 107.
- If your instructor gives you credit for POTW, write his/her name with the class number.
- Contact Bahattin Yildiz with questions: bahattin.yildiz@nau.edu (AMB 134)
- The problems are available online at <https://naumathstat.github.io/problem-of-the-week/>