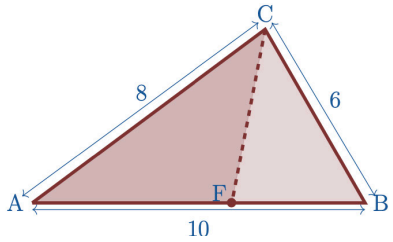
MATH PROBLEM OF THE WEEK

Fall 2023

Problem 1

Suppose ΔABC is a triangle with sides of length $|AB| = 10$, $|BC| = 6$, and $|AC| = 8$. Find the length of the segment AF so that the area of ΔAFC is twice that of triangle ΔFBC. 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, October 9, 10 am

Next problem will be posted on October 9

Send solutions to: mathpotw@nmsu.edu

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