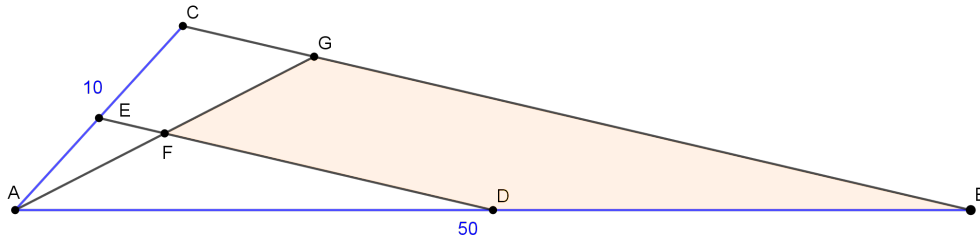# PROBLEM OF THE WEEK #1
(Spring 2019)

Suppose $\triangle ABC$ has area 120, with $|AB| = 50$ and $|AC| = 10$. Let D be the midpoint of AB, and let E be the midpoint of AC. Suppose that the bisector of $\angle BAC$ intersects DE at F and intersects BC at G. Find the area of the quadrilateral $BDFG$.

[Please fully explain your answer.]

Solutions should be submitted to Cinda Furry, in Gardner Hall 435, by 4:00 P.M. on Wednesday, January 30, 2019.

Every week, the best solution submitted earns a \$10 Platteville gift certificate; the top scorer each semester also wins a cash award. Good luck!

You can always see the Problem of the Week (and complete rules) online at:

http://uwpmath.weebly.com/