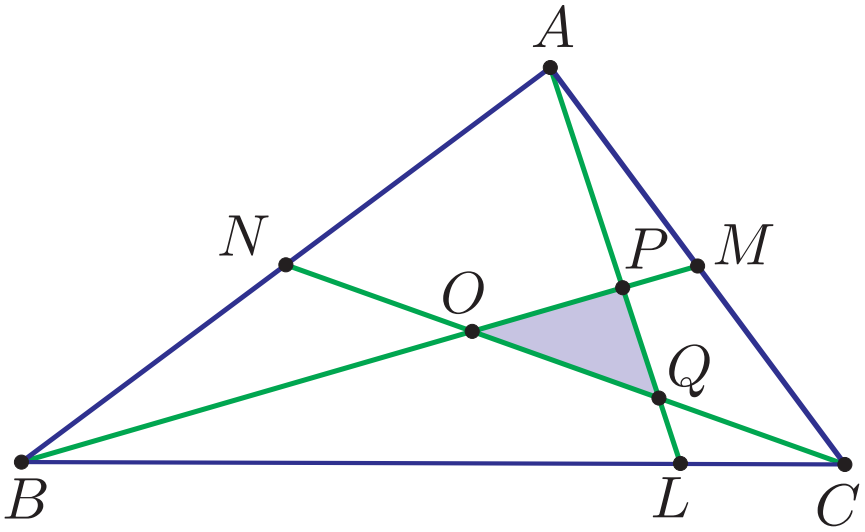
California State University
Northridge

Department of
Mathematics

Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

November 3-10



Triangle ABC has $AC = 9$, $AB = 12$, and $BC = 15$. The points M and N are the midpoints of the segments AC and AB, respectively. A point L is constructed on segment BC, such that $LC = 3$.

Segments BM and CN intersect at O, and segment AL intersects BM and CN at P and Q, respectively.

What is the area of triangle OPQ?

This contest is sponsored by the Mathematics Department. Open to all CSUN students. Winner gets $10 or an equivalent prize. All complete and correct solutions get a certificate. Type and send your solution before November 10th, 9:00PM to silvia.fernandez@csun.edu. All steps of the solution must be clearly justified.
For rules, winners, solutions, and more information visit: www.csun.edu/math/probweek