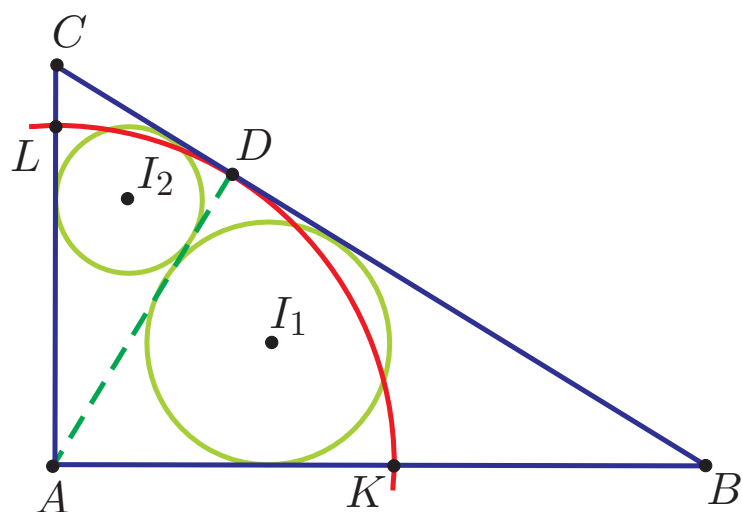


Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

September 25-October 2



Let ABC be a triangle with a right angle at A . Let D be the foot of the altitude through A , and I_1, I_2 the incenters of triangles ABD and ADC . The circle with center A and radius AD cuts \overline{AB} in K and \overline{AC} in L .

Prove that I_1, I_2, K , and L are on a line.

This contest is sponsored by the Mathematics Department. Open to all CSUN students.

Winner gets \$5 or an equivalent prize. All complete and correct solutions get a certificate.

Type and send your solution before October 2nd, 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