

Proposed by Bernardo Ábrego and Silvia Fernández



Consider an isosceles triangle ABCwith AB = AC. Let D be the midpoint of segment BC, E a point on the side AC such that DE is perpendicular to AC, and F the midpoint of segment DE.

Prove that the segments AF and BE are perpendicular.

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 September 29th, 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**

September 22-29