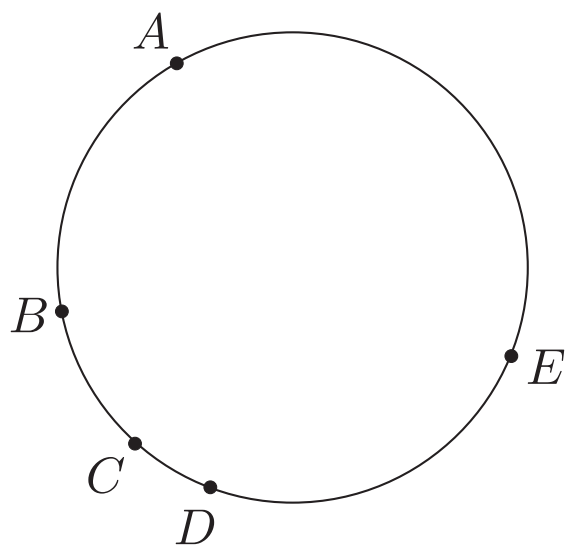


Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

December 5-12



Suppose that five points A , B , C , D , and E on the unit circle (in this order) satisfy that the areas of the triangles ABC , BCD , CDE , DEA , and EAB are all equal. Prove that the pentagon $ABCDE$ must be regular.

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 December 12th, 9:00PM to bernardo.abrego@csun.edu.

All steps of the solution must be clearly justified.

For rules, winners, solutions, and more information visit: www.csun.edu/math/probweek