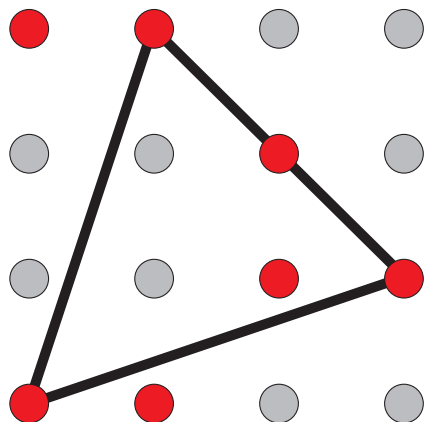


Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

April 17-24



The figure on the left shows a 4x4 square grid.

(a) Show how you can choose six of the 16 points so that there are no isosceles triangles with the vertices among the chosen points.

(b) Prove that no matter how you choose seven points there are always three of them that form an isosceles triangle.

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 April 24th, 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