

Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

November 21-28

Let x and y be real numbers. Prove that

$$\left(\sqrt{1 + x^2} + x \right) \left(\sqrt{1 + y^2} + y \right) = 1$$

if and only if $x + y = 0$.

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 November 28th, 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