

Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

October 3-10

Find all the real numbers m so that the equation in x

$$x^4 - x^2(3m+2) + m^2 = 0$$

has four real roots in arithmetic progression.

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 10th, 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