

Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

September 19-26

Consider an arbitrary collection of six irrational numbers. Show that there are always three of them whose sums by pairs are also irrational. That is, show that there are always three numbers x, y, z from the original six, such that $x+y$, $x+z$, $y+z$ are all irrational.

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 September 26th, 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