

Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

February 9-16

Suppose $m > 1$ is an integer and p a prime number such that m divides $p-1$ and p divides m^3-1 .

Prove that $4p-3$ is a perfect square.

This contest is sponsored by the Mathematics Department. Open to all CSUN students. Winner gets \$10 or an equivalent prize. All complete and correct solutions get a certificate. Type and send your solution before February 16th, 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