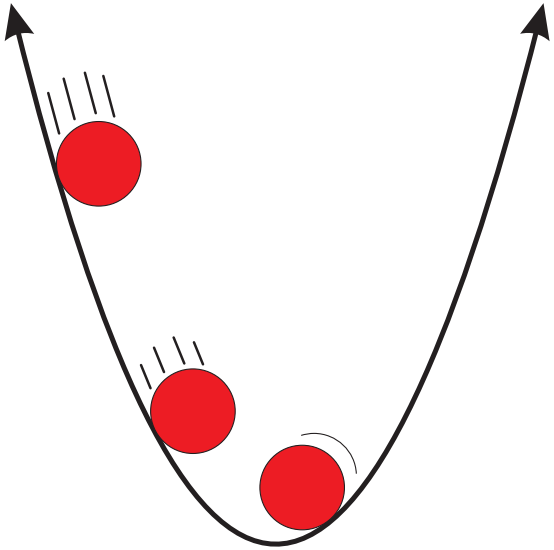
California State University Northridge

Department of Mathematics

Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

November 14-21



Find the radius of the largest disk that can freely rotate on the upper side of the parabola $y = x^2$. That is, the disk should be able to touch every point on the parabola.

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 21st, 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**