

Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

November 20-27



A hundred and one dwarves are seating around a table. There is exactly one dwarf per integer height between 700 and 800 millimeters. For each consecutive pair of dwarves around the table, consider their positive height difference. Find with proof the minimum and maximum possible sum of all 101 differences, over all possible ways the dwarves can seat around the table.

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 27th, 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