

Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

November 7-14

Fifteen girls are standing on a field and each of them has a ball. All distances between girls are different. Each girl throws her ball to the girl standing closest to her.

Show that

- a) one of the girls does not get any ball and
- b) every girl gets at most five balls.



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 14th, 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