California State University
Northridge

problem of the Week

Department of Mathematics

Proposed by Bernardo Ábrego and Silvia Fernández

November 28-December 5

Find how many positive integers n satisfy that

$$\left\lfloor \frac{n}{99} \right\rfloor = \left\lfloor \frac{n}{101} \right\rfloor.$$

Note: $\lfloor x \rfloor$ indicates the greatest integer less than or equal to x. For example $\lfloor 3.7 \rfloor = 3$ and $\lfloor 1/4 \rfloor = 0$.

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 December 5th, 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