Problem of the Week.   March 8-15

Proposed by Bernardo Ábrego and Silvia Fernández.

Let n be a positive integer. A group of n^2 people is divided into smaller groups according to the following procedure: Each person is assigned a different number from 1 to n^2. The first group consists of all people whose number is a perfect square. After removing this group, the remaining people are renumbered starting from 1 again. The second group consists of all people whose new number is a perfect square. The process of renumbering the people and removing the group of perfect squares is repeated until one person is left. This person is the only member of the last group. How many groups were formed?

Deadline: March 15, 2004 before 9:00 PM.
Next problem of the week: Available in our web site on March 15 at 2:00 PM.
www.csun.edu/math/probweek

<u>Rules:</u>

1. Open to all enrolled undergraduate and graduate CSUN students.

2. The first complete and correct solution will be awarded a five dollar prize.

3. The winner solution and the names of the authors of all correct solutions will be published in our web site (**www.csun.edu/math/probweek**).

4. All solutions must be typed and sent electronically. PDF, Latex, or Word files are preferred.

5. All steps of the solution must be clearly justified.

6. Email your solution with subject "Problem of the week" to

   Bernardo.Abrego@csun.edu.

7. Late solutions will not be considered.

8. For any questions contact the organizers

- Bernardo.Abrego@csun.edu
- Silvia.Fernandez@csun.edu

If you like puzzles and challenging problems ... join the Mathematics Department Problem Solving Workshop. We meet every Friday at 2:00 PM in FOB room 108. For more information visit our web site: www.csun.edu/math/workshop.