

# Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández.

April 4-11



A digital LCD watch displays hours, minutes, and seconds in AM/PM mode. Each LCD number displayed has a certain number of *segments* turned on. For example, the number 9 has six segments, the number 1 has two segments, and at 9:02' 15" (see figure) there are 24 segments turned on.

How many times during the day are there exactly 33 segments turned on?

**Deadline:** April 11, 2005 before 9:00 PM.

Look for the "Problem of the Week" every Monday in the Daily Sundial (Daily Spotlight section) or in our web site [www.csun.edu/math/probweek](http://www.csun.edu/math/probweek)

## Rules:

1. Open to all enrolled undergraduate and graduate CSUN students.
2. The first complete and correct solution will be awarded a diploma and the choice of a "Magnetix Building Set" or 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](http://www.csun.edu/math/probweek)). All authors whose solutions are complete and correct will receive certificates.
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](mailto:Bernardo.Abrego@csun.edu)
7. Late solutions will not be considered.
8. For any questions contact the organizers [Bernardo.Abrego@csun.edu](mailto:Bernardo.Abrego@csun.edu), [Silvia.Fernandez@csun.edu](mailto:Silvia.Fernandez@csun.edu)