

## Problem of the Week

Proposed by Bernardo Ábrego and Silvia Fernández

September 8-15

Find an integer number such that the number formed by its first three digits is a multiple of 3; the number formed by its second, third, and fourth digits is a multiple of 4; the number formed by its third, fourth, and fifth digits is a multiple of 5; and so on. Moreover, no three consecutive digits are zeros.

For example, 288402 is a solution because 288, 884, 840, and 402 are multiples of 3, 4, 5, and 6 respectively.

The largest solution wins!

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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 September 15th, 9:00PM to [silvia.fernandez@csun.edu](mailto: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](http://www.csun.edu/math/probweek)