

Problem of the month
March 2010

We are pleased to inform that Michael Watkins wrote the best* solution for the February 2010 Problem of the Month. He has won the right to brag, and be correct in any mathematical discussion** that is held in February 2010. Congratulations Michael!

Tim Courrejou also wrote a wonderful numerical solution to this problem and deserves an honorable mention.

We thank to all those who wrote solutions to last month's problem. We encourage you to keep submitting your solutions.

You will have until **March 31st** to solve the problem below. Solutions can be either

1. written neatly on a sheet of paper and dropped in the mailbox outside PB 352, or
2. typed up using your favorite text editing software (\LaTeX preferred) and then turned in via email at either asabuwala@csufresno.edu or ovega@csufresno.edu.

At the end of the month, we will review all your solutions and post the names of the individuals who have turned in complete correct solutions, and who wrote the best* solution.

Bragging rights winners, solutions, future problems of the month, etc can be found on

[http : //csufresno.edu/math/news_and_events/pom.shtml](http://csufresno.edu/math/news_and_events/pom.shtml)

Problem for March 2010.

Find the coefficient of x^{50} in the expression:

$$(1+x)^{1000} + 2x(1+x)^{999} + 3x^2(1+x)^{998} + \dots + 1000x^{999}(1+x) + 1001x^{1000}.$$

* A solution will be considered better than other in terms of being correct, thoroughness of the explanation, beauty of the idea used, etc.

** Exams, quizzes, homework not included. Not valid where voided and with non-participating professors.