

**Problem of the month**  
**April-May 2013**

We are pleased to inform that Cameron Khalili and Katie Urabe wrote the best\* solution for the March 2013 Problem of the Month. They have won the right to brag, and be correct in any mathematical discussion\*\* that is held over the summer. They have also won a surprise 'math' gift.

Congratulations Cameron and Katie!

We encourage all students to keep submitting solutions to the POM.

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You have until **May 18<sup>th</sup>** 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 (L<sup>A</sup>T<sub>E</sub>X 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 solutions and post the names of the individuals who have turned in complete correct solutions, and who wrote the best\* solution.

The student who writes the best answer for this month's problem wins the right to brag, and be correct in any mathematical discussion\*\* that is held in April 2013. Moreover, he/she will get a surprise 'math' gift!!!

Bragging rights winners, solutions, past (and future) problems of the month, etc may be found on

<http://www.fresnostate.edu/csm/math/news-and-events/pom.html>

**Problem for April-May 2013.**

Solve the following system of equations:

$$\begin{aligned}x^2y^2 - 2x + y^2 &= 0 \\2x^2 - 4x + 3 + y^3 &= 0\end{aligned}$$

Use algebraic techniques only and show all steps of your solution. Graphical and/or Numerical (using a computer) solutions will not be considered correct, but could be used to devise an algebraic solution strategy.

\* 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.