

# Cal Poly Department of Mathematics

## Puzzle of the Week

Feb 11-17, 2011

From Vince Bonini:

For an arbitrary positive integer  $n$  calculate

$$\int_{-\infty}^{\infty} \frac{dx}{(x^{2n} + 1)(x^2 + 1)}$$

*Hint: A previous Puzzle of the Week may prove helpful...*

*Solutions should be submitted to Morgan Sherman:*

*Dept. of Mathematics, Cal Poly  
Email: sherman1 -AT- calpoly.edu  
Office: bldg 25 room 310*

*before next Friday. Those with correct and complete solutions will have their names listed on the puzzle's web site (see below) as well as in next week's email announcement. Anybody is welcome to make a submission.*

<http://www.calpoly.edu/~sherman1/puzzleoftheweek>