University of Notre Dame Department of Mathematics

MATHEMATICS TEACHING SEMINAR

Quinn Culver and Victor Ocasio Gonzalez

University of Notre Dame

Will give two lectures entitled:

"Derivatives - Take 2"
&
"An Introduction to Integration in Polar Coordinates - Take 2"

Tuesday, March 8, 2011
At
5:00 PM
In
231 Hayes-Healy Hall

Abstracts

Quinn Culver will present "Derivatives".

Abstract: In this talk I will give a motivation for and definition of the derivative followed by some examples.

Victor Ocasio Gonzalez will present "An introduction to Integration in Polar Coordinates".

Abstract: How do we integrate in polar coordinates and how does it differ from conventional integration in rectangular coordinates? We explain briefly the reasoning behind the formula $\frac{1}{2}\int_a^b [f(\theta)]^2 d\theta$ for computing area and how it might differ from conventional integration. Knowledge on polar coordinate plane and polar graphing is presupposed.