

Meeting: 1003, Atlanta, Georgia, MAA CP B1, MAA Session on My Favorite Demo: Innovative Strategies for Mathematics Instructors, I

1003-B1-463 **Robb Sinn*** (rsinn@ngcsu.edu), Mathematics/CS Dept., North Georgia College & State University, Dahlonega, GA 30597. *Using Geometer Sketchpad in Calculus I.*

Do your students have trouble generating the drawings for related problems? Do they say they cannot get the "set-up part" for optimization? Mine do, and they have responded enthusiastically to dynamic sketches and animations as in-class demonstrations. They say the animations improve their visualization skills. Geometer's Sketchpad makes generating geometric-based demonstrations for calculus classes easy and quick. Drawings are dynamic and easily converted to web-based formats. Animations are possible. GSP drawings are perfect for proving trig identities on the unit circle "by picture" or for setting up related rates or optimization problems. These demos can also lead easily to interesting team projects. Better yet, a typical dynamic drawing takes less than five minutes to design. Animations can be completed in less than ten. Provided at the talk are several demonstrations to show the possibilities, a quick example sketch to show ease-of-use, web links to several ready-to-use examples and a "How To GSP" handout with critiques of typical problems and suggested "work-arounds." (Received September 15, 2004)