

Department of Mathematics and Computer Science

October 2, 2009

Friday, October 2, 4:00 PM

COLLOQUIUM

Speaker: Peter Andrews

Old Main 2231

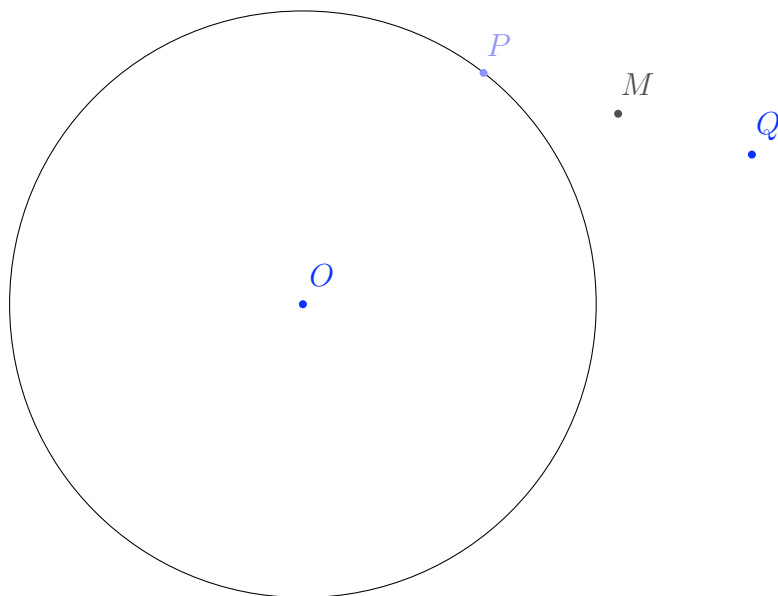
Title: “As Sand to Archimedes ...”

Abstract:

Legend has it that Archimedes was killed while drawing circles in the sand. In the absence of sand boxes in our offices, we can use dynamic geometry software. One of these is a relatively new, public-domain project, **Geogebra**. We saw last week that it can export figures in formats easily used by \LaTeX . In this talk I will show a few rather interesting applications of Geogebra, starting with a the geometric view of 2-variable linear programming problems and ending with Archimedes’ quadrature of the parabola and determination of the area of an ellipse — from MAT 2120, through 2420 to 3271 and 4900.

Homework:

Given a point P , constrained to move on a circle (with center O), and a fixed point Q , outside that circle, what is the locus of the mid-point of the segment PQ as P moves around the circle?



SNACKS IN FACULTY LOUNGE AT 3:30 PM.
EVERYONE WELCOME (EVEN IF YOU ARE UNABLE TO ATTEND THE TALK)
