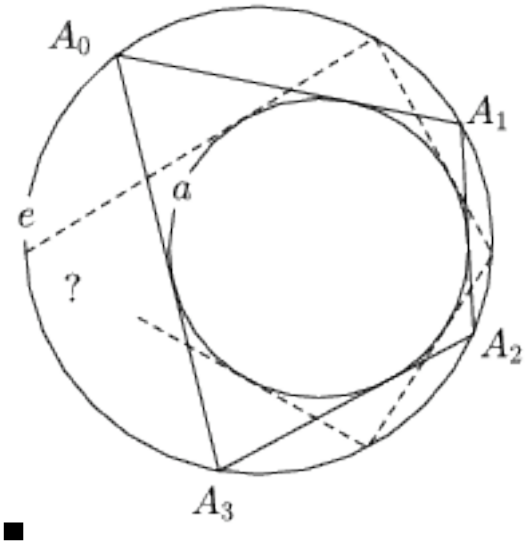
Undergraduate Math Club
Winter 2007
2nd floor Nesbitt Common Room
Thursday, February 1, 4:10-5:00pm
(free pizza and pop, as always)



Elliptic curves and Poncelet's Theorem

Professor David Lehavi

Abstract

Poncelet's theorem states that if C and D are ellipses and there exists an n-sided polygon that is simultaneously inscribed in C and circumscribed around D, then there are infinitely many such n-sided polygons. We will prove the theorem using the theory of elliptic curves, which are formalized bagel crusts. No prior knowledge of bagels is assumed.

Image from: http://www.komal.hu/lap/2002-ang/fig6d7976029b13b7.gif