Jason Cantarella and Elizabeth Denne*, Dept. Mathematics and Statistics, Smith College, Northampton, MA 01063, and John McCleary. Further results on the "Square Peg" problem.
Given a simple closed curve (a Jordan curve) $\gamma$ in $\mathbb{R}^{2}$, can we find four points on $\gamma$ that form a square? It is natural to ask if other polygons may be inscribed in Jordan curves. Many authors have considered both problems; for example proving existence of inscribed squares with various regularity assumptions. Previously, we extended the proof of existence of inscribed squares to a larger class of curves including curves of finite total curvature with no cusps. In this talk we discuss results about polygons. (Received September 10, 2007)

