



CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY

Name(s) Kaelin A. Swift	Project Number J1318
Project Title There and Back Again: A Point's Tale: The Planar Isometries of a Regular Polygon	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals In this project, an analytic description of the counter clockwise rotations of regular polygons is obtained. This project is a continuum of last years project.</p> <p>Methods/Materials Aspects of trigonometry and complex numbers are combined with group theory to obtain the desired description.</p> <p>Results The rotations are described in terms of the cyclic group and the vertices of the polygon are shown to be roots of Z_{n-1}.</p> <p>Conclusions/Discussion I extended my results from last years project and obtained an analytic description of the polygon's vertices.</p>	
Summary Statement To obtain a description of the vertices of a regular polygon.	
Help Received Father helped prepare the display board.	