

1086-51-946

John Jacob Zanazzi* (jz57@nau.edu), 400 E. McConnel Dr. #61, Flagstaff, AZ 86001. *A Proof Related to the Projections of Polyhedra.*

In 1959, Klee proved that an n -dimensional convex body K is polyhedral if all of its j -projections are polyhedral. In three dimensional space, this statement may be rephrased as follows: If K is a compact convex set in \mathbb{R}^3 such that all of its projections into \mathbb{R}^2 are convex polygons, then K is a convex polyhedron. In this paper, a new proof of the three dimensional case is presented. (Received September 16, 2012)