1046-57-616Angela L Pile* (apile@lhup.edu), Math Department, 418 Robinson Hall, Lock Haven
University, Lock Haven, PA 17745. The Space of Regular Polygons.

We will analyze the space of regular polygonal knots with six or fewer edges, that is, polygonal knots with the requirements that the lengths of the edges and the measures of the interior angles are equal. We will find that the space of regular hexagons has thirteen components, all of which contain topological unknots. However, the hexagons in twelve of the components are geometrically knotted because they cannot be deformed to the standard regular planar hexagon. (Received September 09, 2008)