

An Application of Analytic Geometry to Designing Machine Parts--and Dresses

Karl Hess

Sinclair Community College

Dayton, OH 45402-1460

Email: Karl.Hess@sinclair.edu

Abstract: This paper presents the solution of an engineering problem that the author was asked to solve. The problem involves creating a flat pattern that could be cut from a piece of sheet metal and rolled to form a tube whose top edge would be contained in a plane that is not perpendicular to the central axis of the tube. A piece of this nature needs to be fabricated whenever two sheet metal tubes must be joined at any angle other than a straight angle.