

PS #6**Due: 4/23/10 Tue Lab****Due: 4/26/10 Fri Lab**Objectives

1. To determine the stresses of a membrane surface with a hole.
2. Compare finite element (COSMOS) results with mechanics of materials fundamentals.

The Problem

Using the procedures outlined in lab lecture develop a COSMOS model of a plate with a hole, notch or re-entrant corner. Apply tensile forces to the plate and compare the resulting stresses to typical “stress concentration factor” methods outlined in your old mechanics of materials, machine design or other reference text.