

MAE 415 – Analysis of Structures

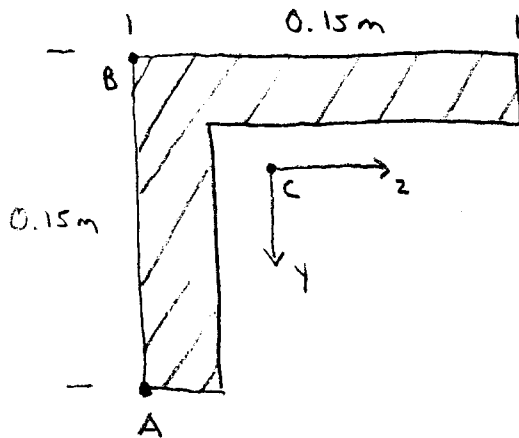
Instructors: Bloebaum/Hulme

Assignment #4

Due date: 9/29/00, BEFORE class begins

Class web page: <http://www.eng.buffalo.edu/~clb/mae415.html>

1. A 0.15 by 0.15 meter slender angle of 0.02 meter thickness is subjected to oppositely directed end couples $M_z = 11,000$ N-m, at the centroid of the cross section. What bending stresses exist at points A and B on a section away from the ends of the beam? Determine the orientation of the neutral axis.



2. What is the maximum tensile stress σ_{xx} in the cantilever beam shown? The line of action of the 100-lb. force goes through the centroid of the cross section.

