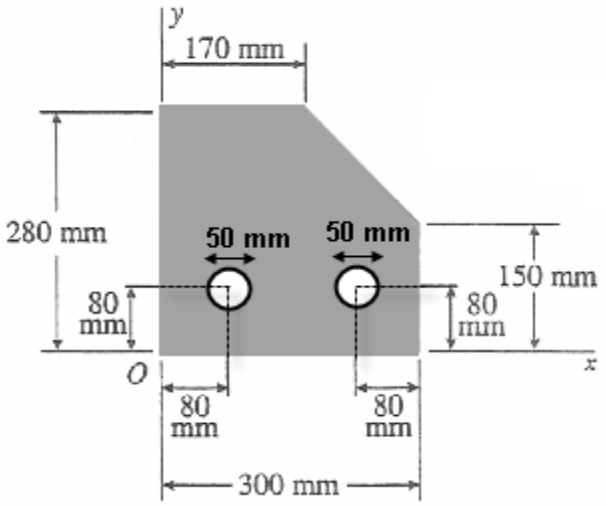
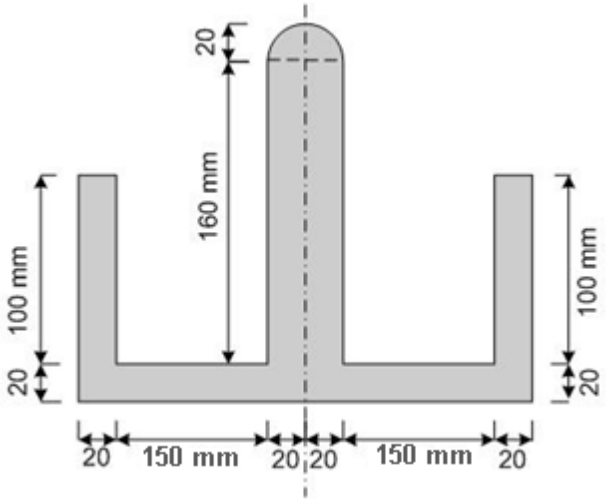
CVG 2140 – Assignment No. 3 (Centroids & Moments of Inertia)

(Due Date: Tuesday, February 9th, 2016 by 5PM)

Problem 1: For the section shown below, find the position of the centroid.
(Note: solve the problem by taking the origin at the point "O")



Problem 2: For the section shown below, find the moments of inertia I_x, I_y, J_o, I_{xy} with respect to a coordinate system located at the centroid. (Dimensions are in mm).



Problem 3: Consider the section shown below. For a coordinate system located at the centroid, calculate the maximum and minimum values of the moments of inertia I_{max} and I_{min} (obtained by rotating the axes) and the corresponding angles.