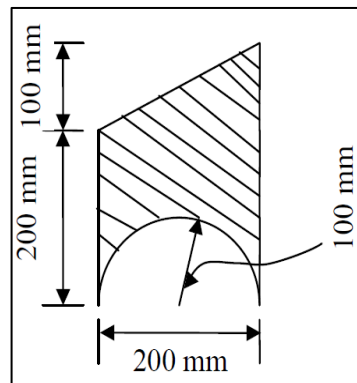


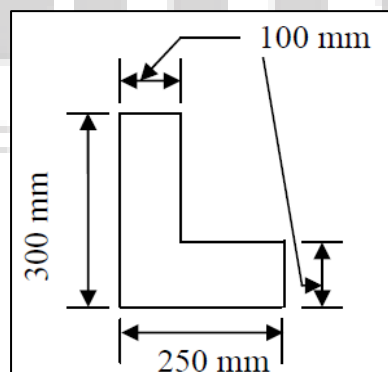
MECHANICS OF SOLIDS

ASSIGNMENT: 5

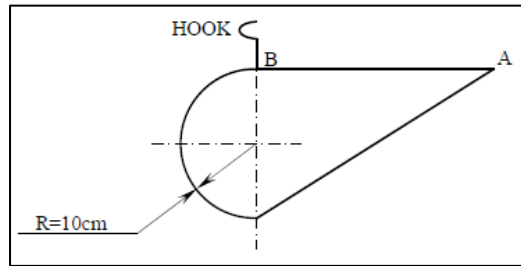
- 1) Derive equation of centroid for a triangular lamina from its base. Find centre of gravity of a lamina shown in the fig.



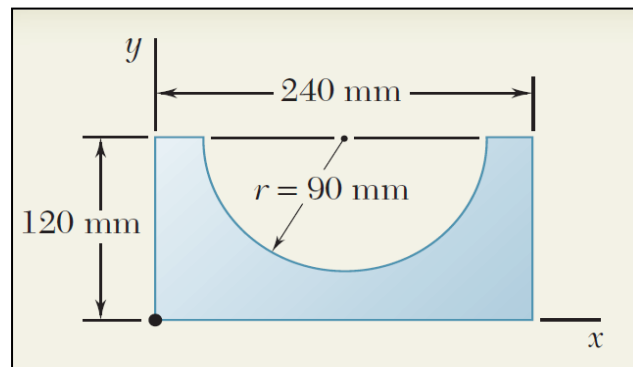
- 2) Find Moment of Inertia of a lamina shown in the fig.8 about horizontal centroidal axis.



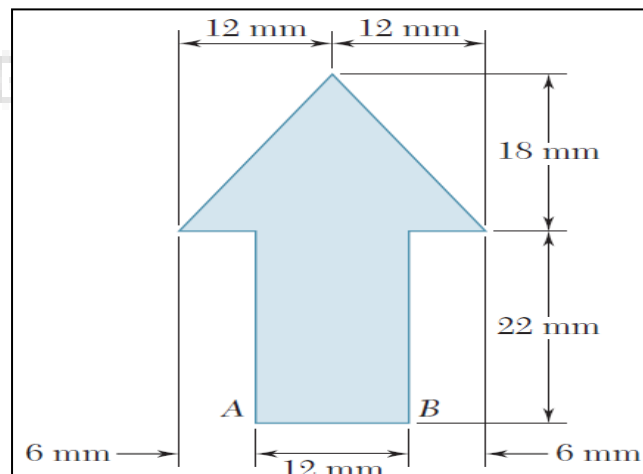
- 3) A lamina of uniform thickness is hung through a weightless hook at point B such that side AB remains horizontal; as shown in Fig . Determine the length AB of the lamina.



- 4) Determine the moment of inertia of the shaded area with respect to the x axis.



- 5) Determine the moments of inertia I_x and I_y of the area shown with respect to centroidal axes respectively parallel and perpendicular to side AB.



- 6) Find moment of inertia of the give lamina about the Centroid "C".
Assume the corners to be without any curvature.

