

CE 201
STATICS

Last H.W.

Do the HW before the final exam and before you see the key solution, but it is *not to be submitted*.

- 1) For the area shown in Fig. P1, determine I_x and I_y .
- 2) Determine the moments of inertia \bar{I}_x and \bar{I}_y of the area shown in Fig. P2 with respect to the centroidal axes which are parallel and perpendicular to the side AB.
- 3) For the area shown in Fig. P2, determine the moment of inertia about axis AB. Do not use any of the results obtained in problem 2. Compare the solution steps of this problem with the steps of problem 2 and discuss.
- 4) In the area shown in Fig. P4, set $a = 30 \text{ mm}$. Determine I_x and I_y .
- 5) For the area shown in Fig. P5, determine the moments of inertia with respect to the horizontal and vertical centroidal axes.

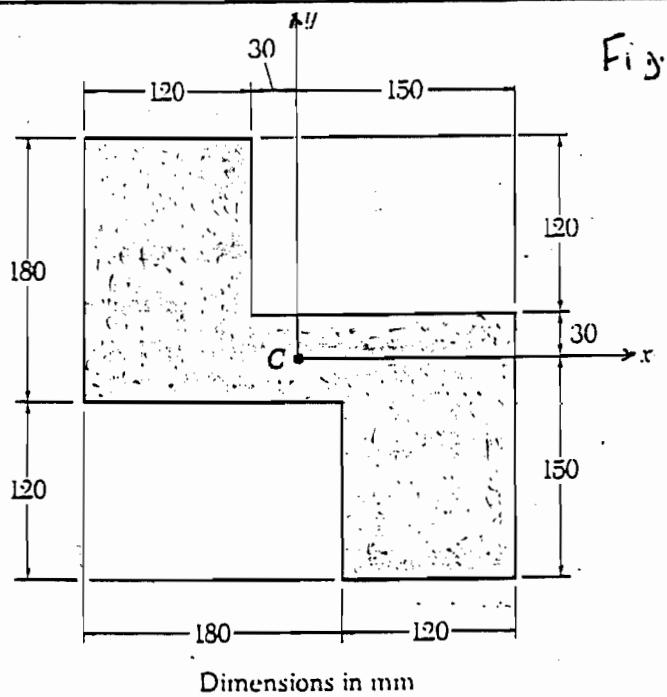


Fig. P1

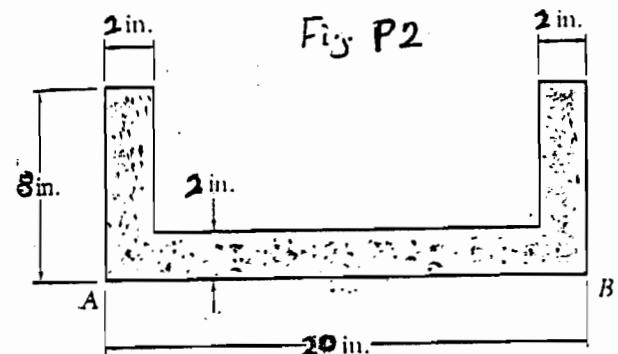


Fig. P2

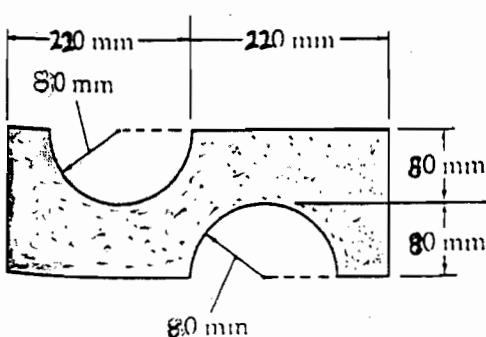


Fig. P5

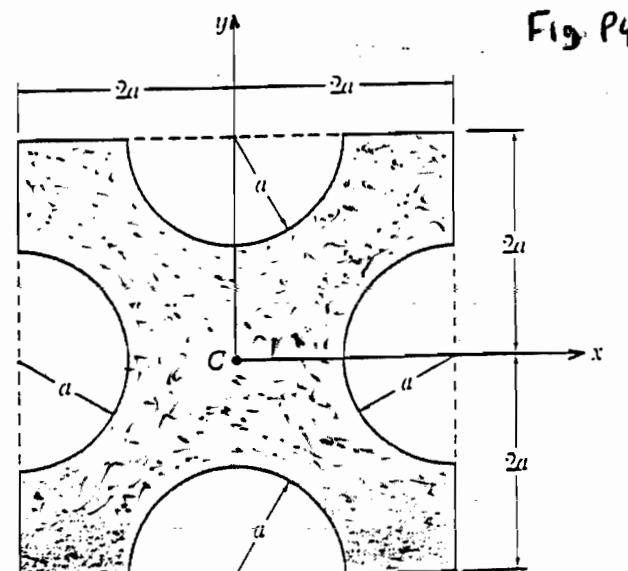


Fig. P4