

CE 201  
 STATICS

H.W. # 14

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  $a = 30$  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.

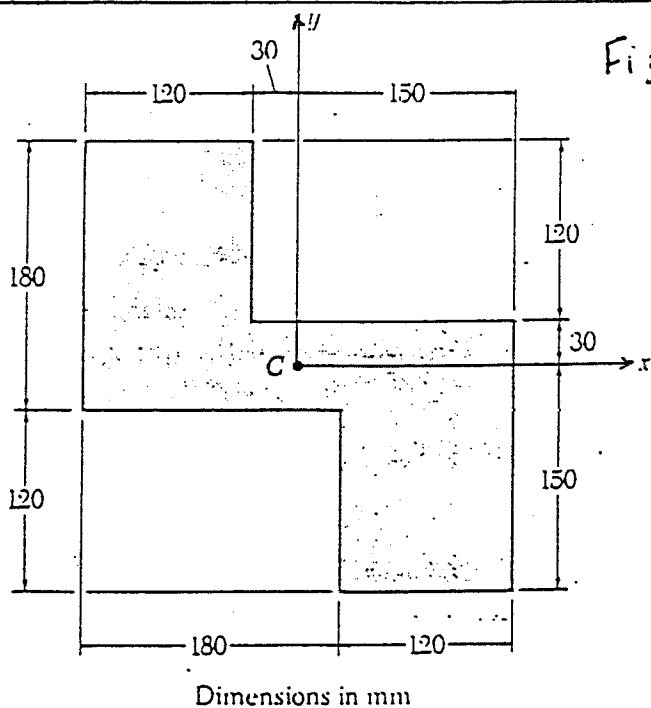


Fig. P1

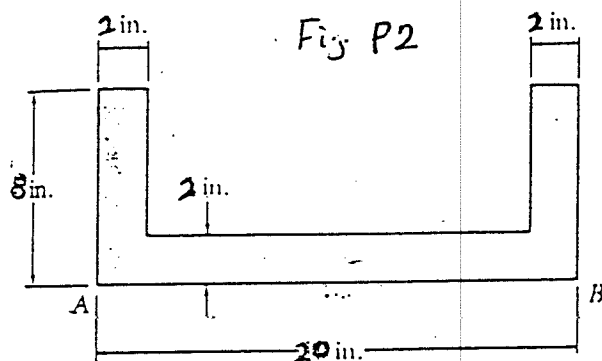


Fig. P2

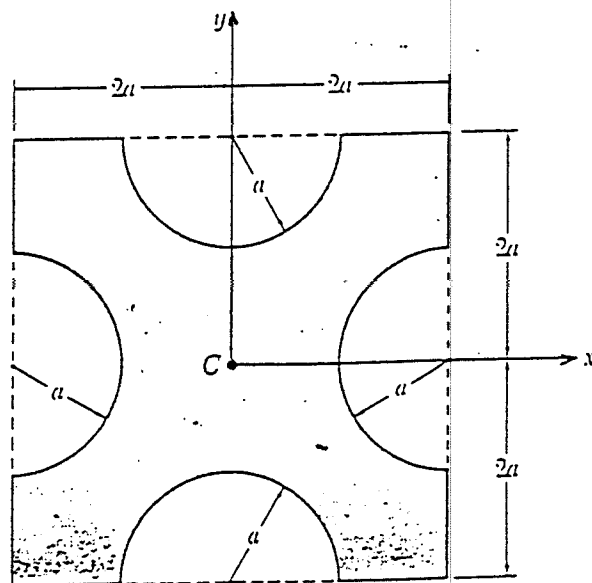


Fig. P4

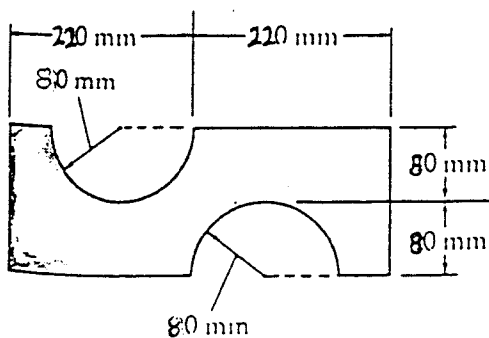


Fig. P5