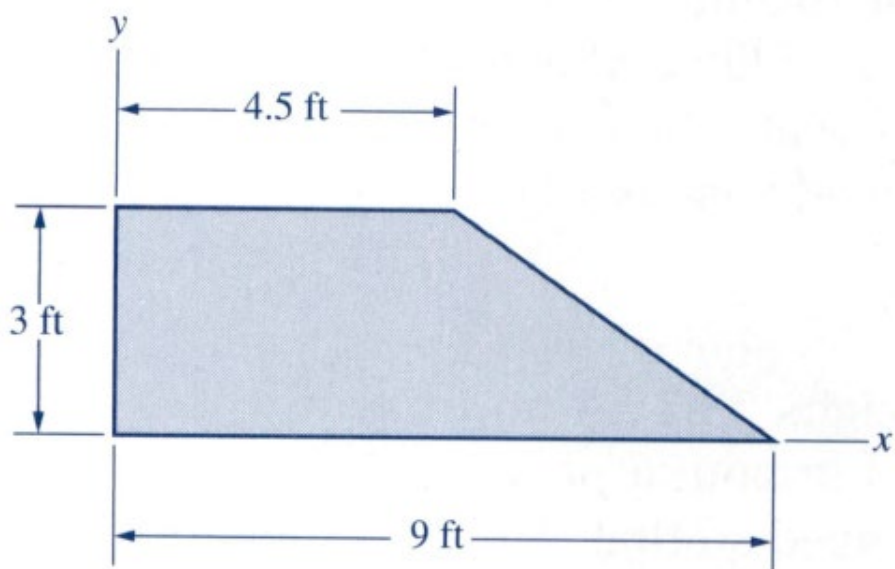


7-12 to 7-21 Locate the centroid of each plane area shown in Figs. P7-12 to P7-21.

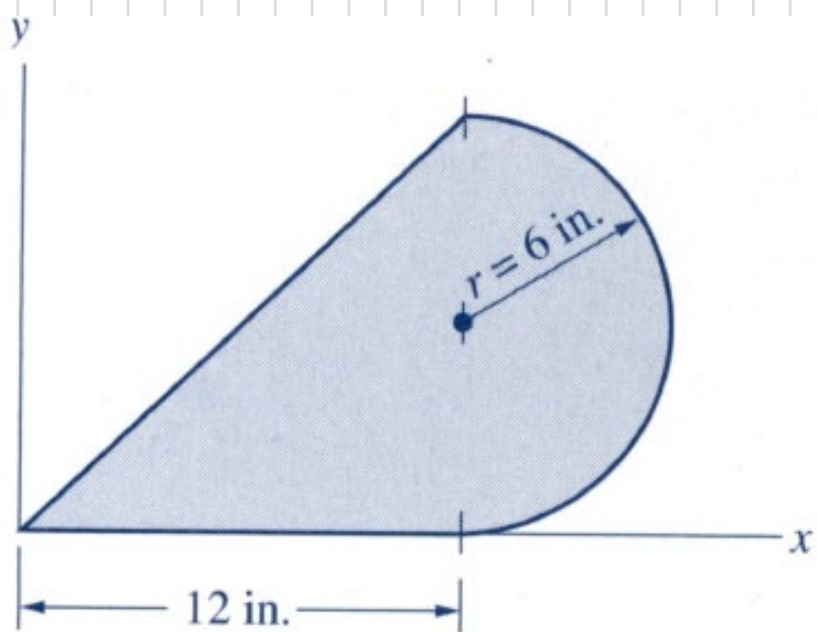
7-12.

Solution.

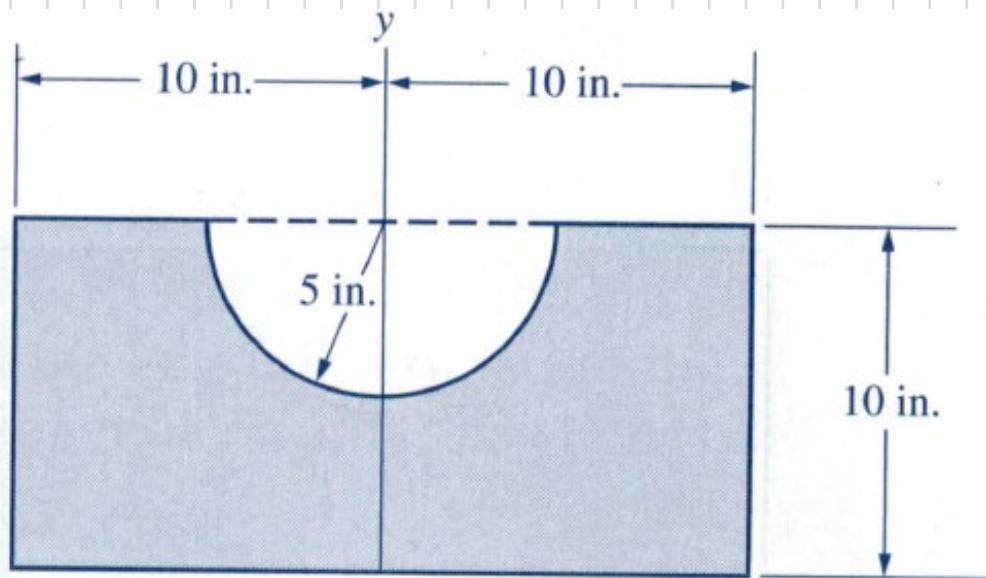


7-14

Solution.

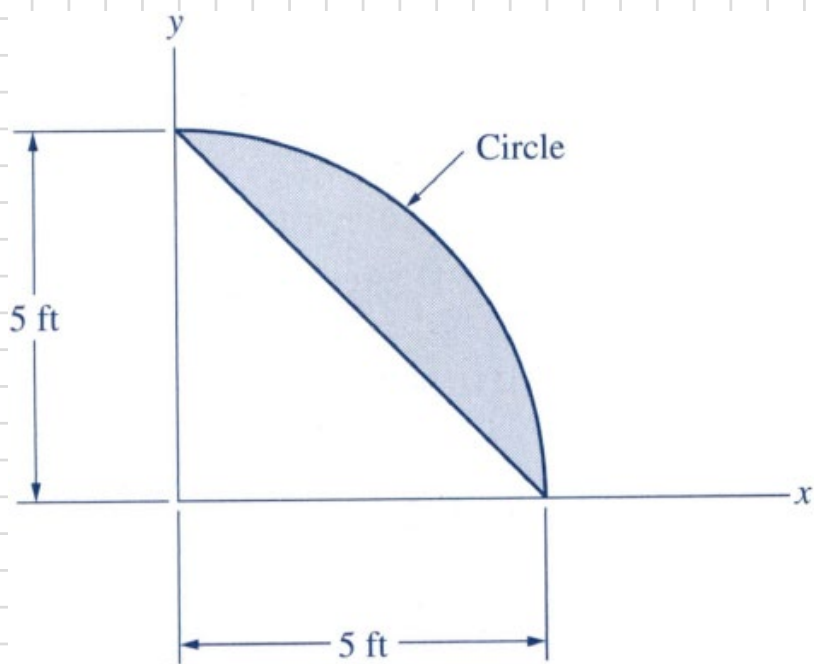


7-17.
Solution.



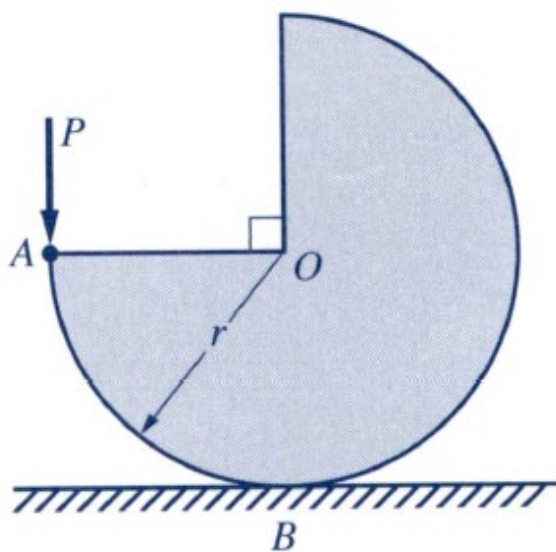
7-20

Solution.



7-22 The homogeneous disk in Fig. P7-22 has a uniform thickness and weighs 30 lb. Determine the force P required to maintain the equilibrium of the disk in the position shown.

Solution.



7-25 to 7-28 Refer to Figs. P7-25 to P7-28. Determine the reactions at the supports of the beams for the loading shown in each figure.

7-26.

Solution.

