

- 7.35 and 7.36** Determine the moments of inertia \bar{I}_x and \bar{I}_y of the area shown with respect to centroidal axes that are respectively parallel and perpendicular to the side AB .

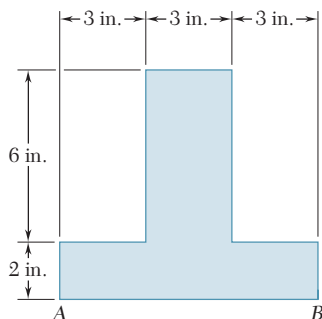


Fig. P7.35

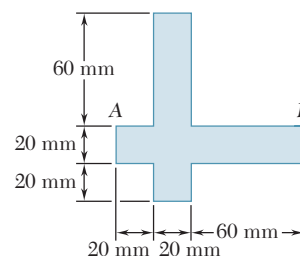


Fig. P7.36

- 7.37** Determine the moments of inertia \bar{I}_x and \bar{I}_y of the area shown with respect to centroidal axes that are respectively parallel and perpendicular to the side AB .

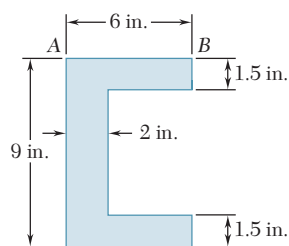


Fig. P7.37 and P7.38

- 7.38** Determine the centroidal polar moment of inertia of the area shown.

- 7.39 and 7.40** Determine the polar moment of inertia of the area shown with respect to (a) point O , (b) the centroid of the area.

- 7.41** Two $W8 \times 31$ rolled sections can be welded at A and B in either of the two ways shown. For each arrangement, determine the moment of inertia of the section with respect to the horizontal centroidal axis.

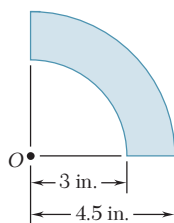
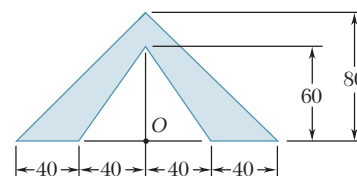


Fig. P7.40



Dimensions in mm

Fig. P7.39

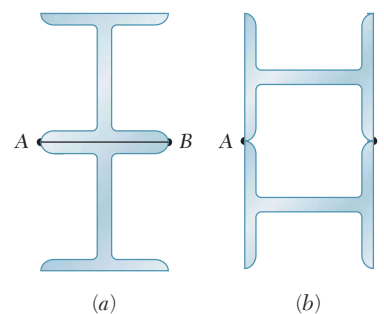


Fig. P7.41