

NOTE: Only problems 5.7 and 6.28 will be marked.

Problem 1 (Problem 5.7)

Locate the centroid of the plane area shown.

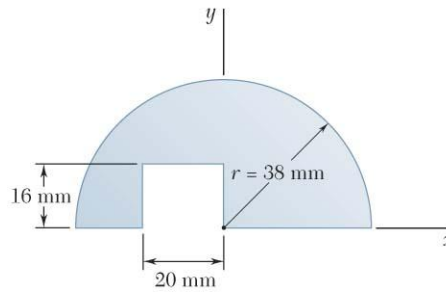


Fig. 1

Problem 2 (Problem 5.28)

A uniform circular rod of weight 40 N and radius 10 cm is attached to a pin at C and to the cable AB. Determine:

- (a) The tension in the cable,
- (b) The reaction at C.

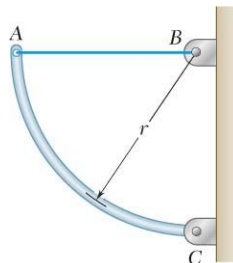


Fig. 2

Problem 3 (Problem 6.11)

Determine the force in each member of the Howe roof truss shown. State whether each member is in tension or compression.

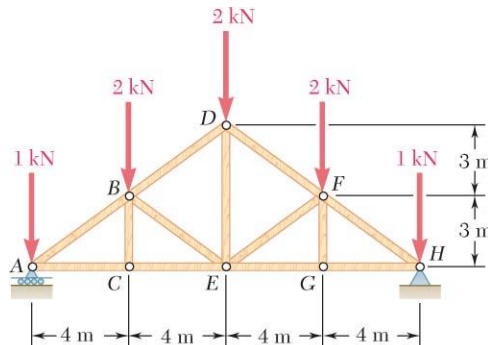


Fig. 3

Problem 4 (Problem 6.13)

Determine the force in each member of the truss shown.

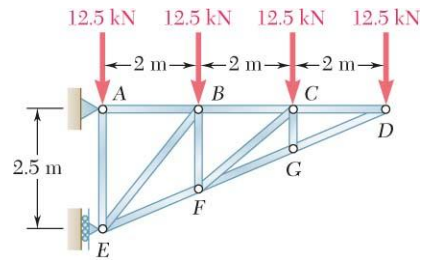


Fig. 4

Problem 5 (Problem 6.28)

Determine the force in each member of the truss shown. State whether each member is in tension or compression.

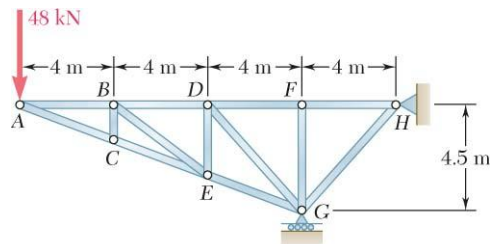


Fig. 5