

Chapter 20

Structural idealization

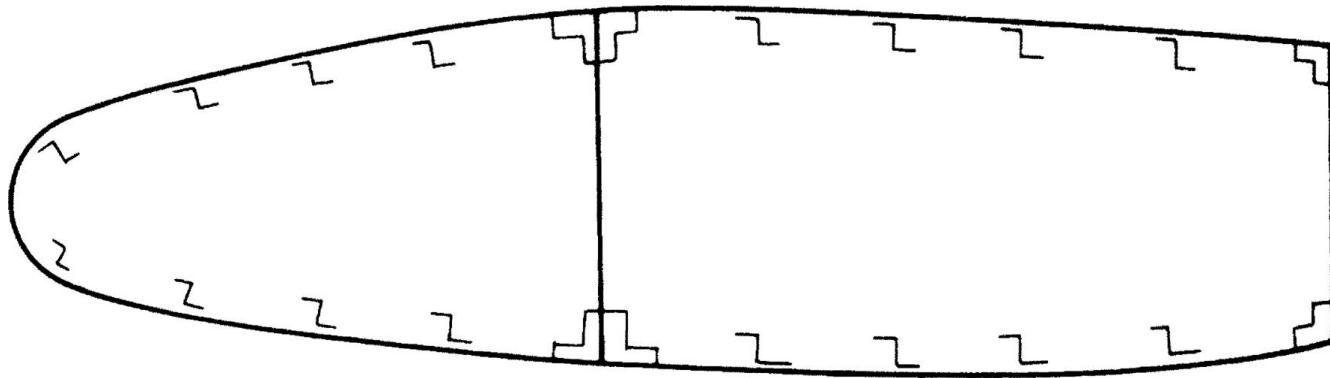


FIGURE 20.1 Typical Wing Section

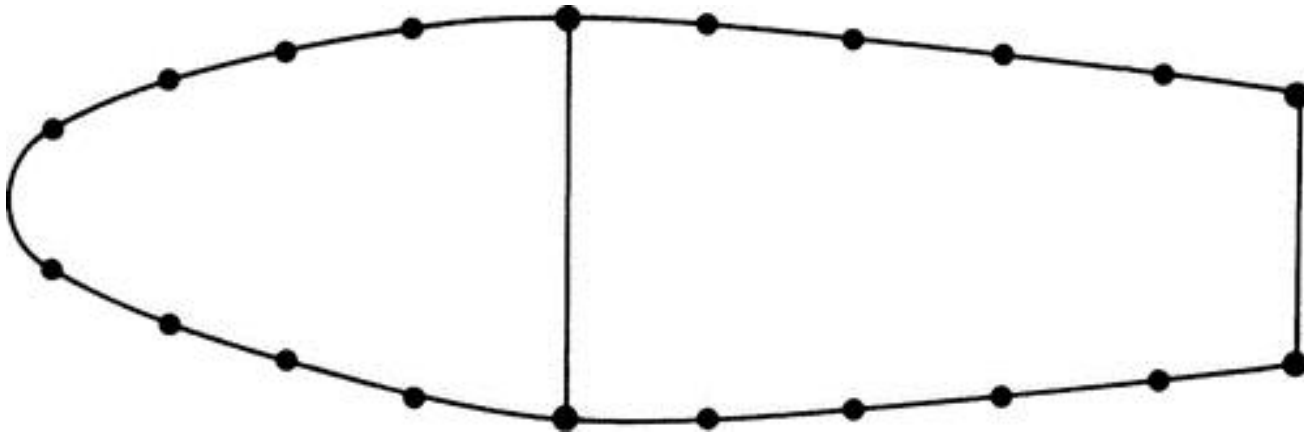


FIGURE 20.2 Idealization of a Wing Section

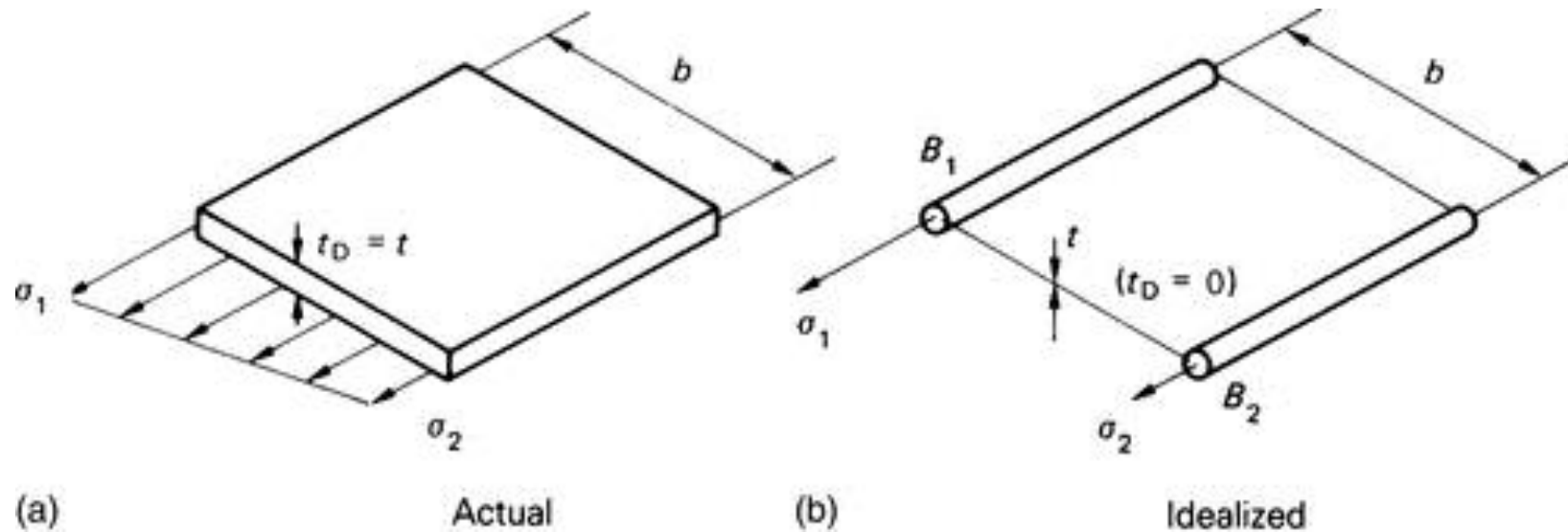


FIGURE 20.3 Idealization of a Panel

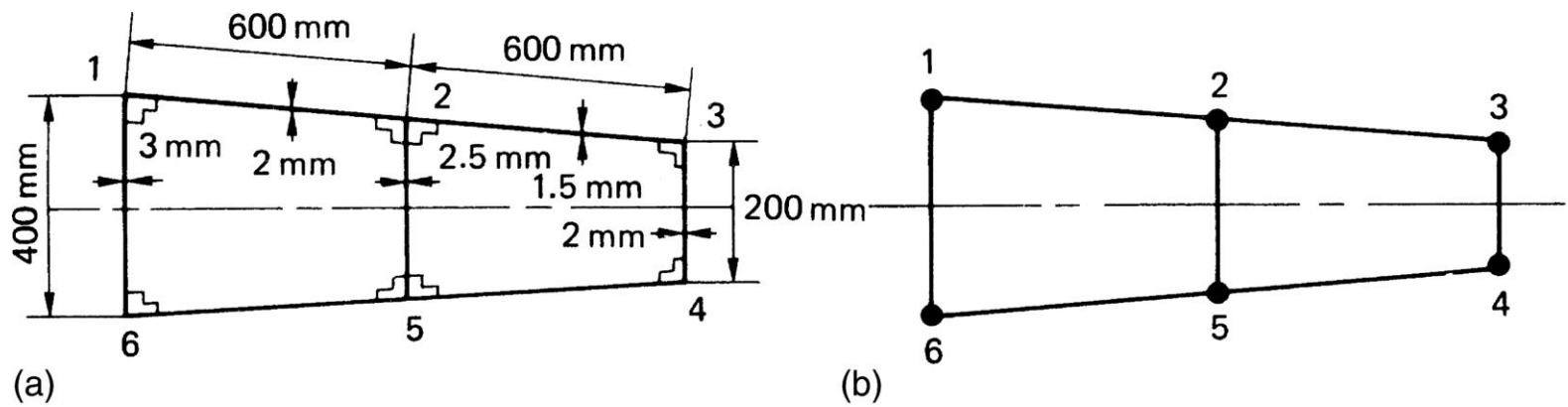


FIGURE 20.4 Idealization of a Wing Section

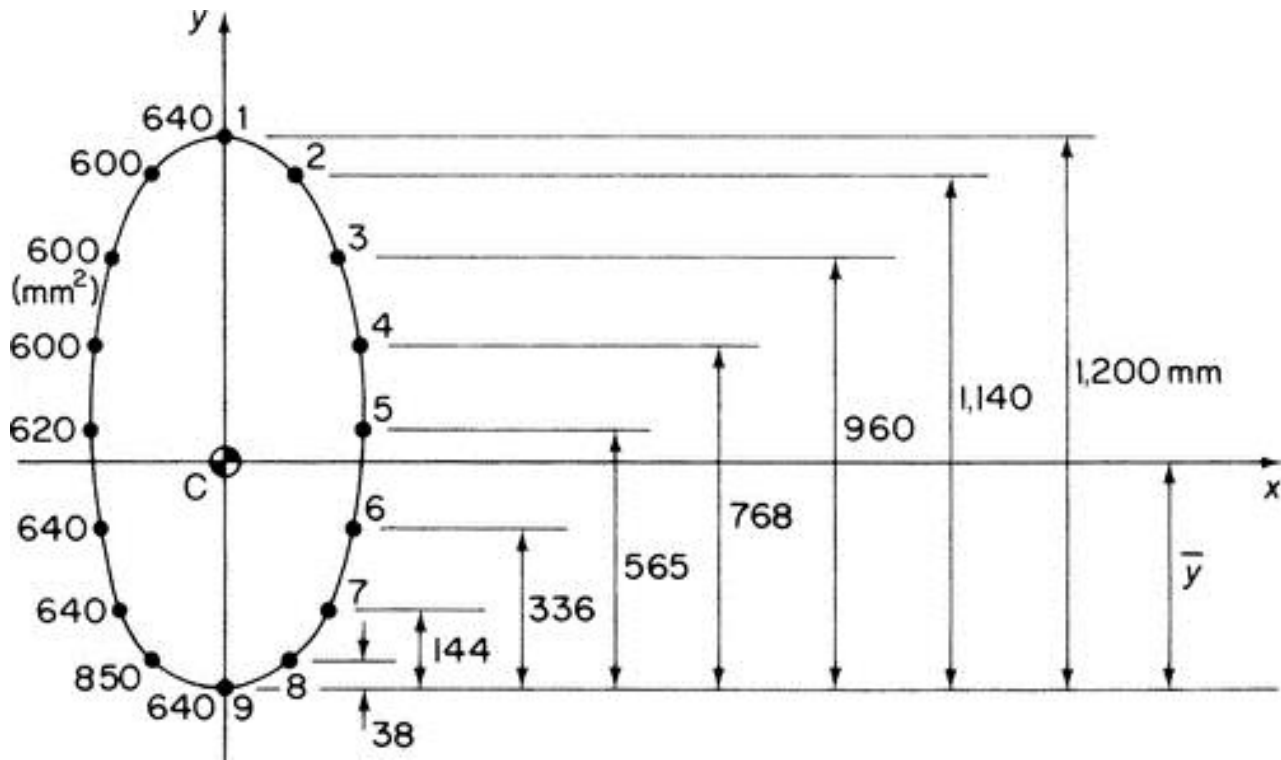


FIGURE 20.5 Idealized fuselage Section of Example 20.2

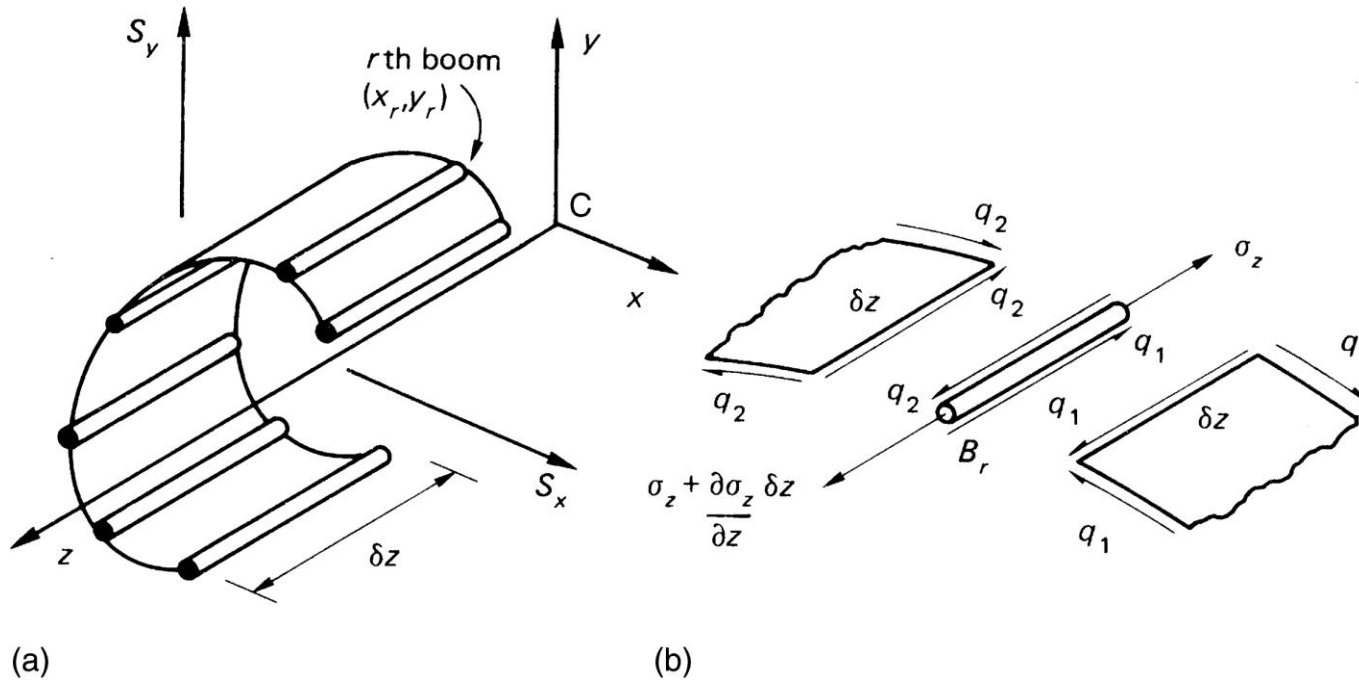


FIGURE 20.6 (a) Elemental Length of Shear Loaded Open Section Beam with Booms; (b) Equilibrium of Boom Element

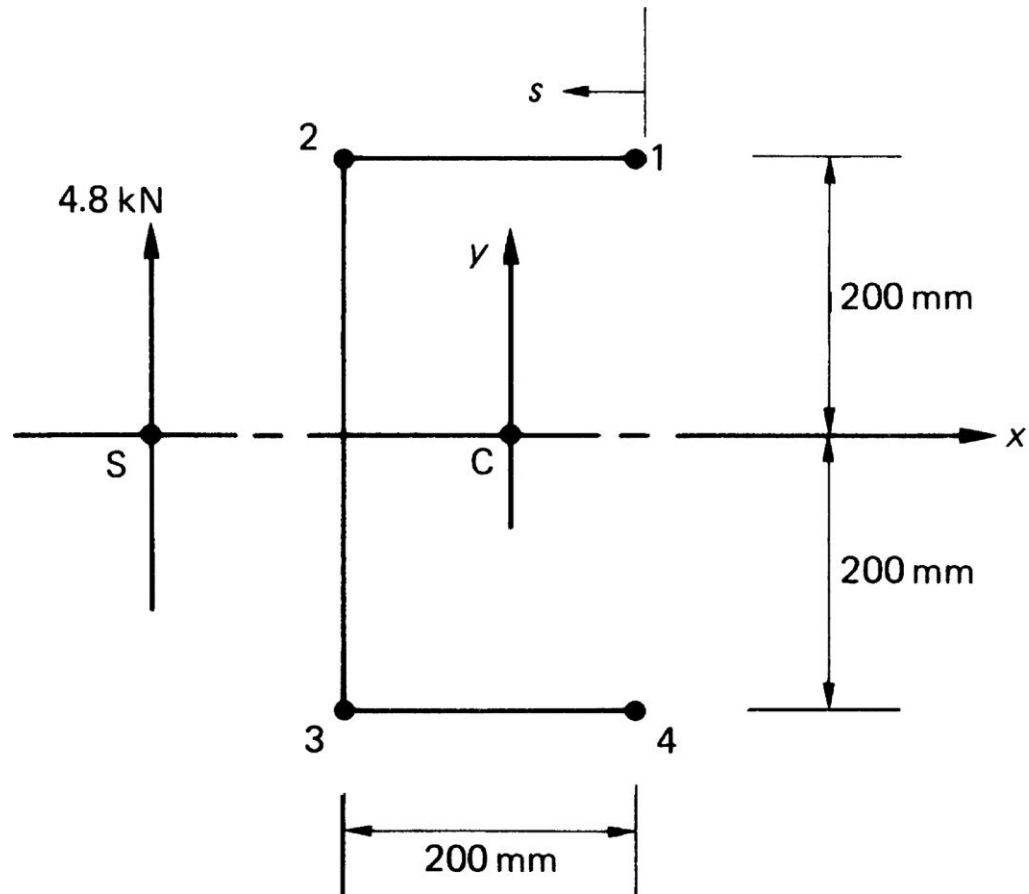


FIGURE 20.7 Idealized Channel Section of Example 20.3

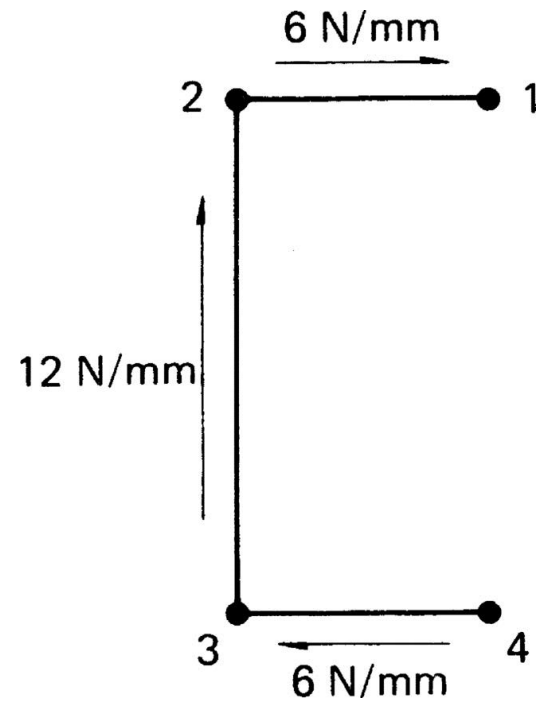


FIGURE 20.8 Shear Flow in Channel Section of Example 20.3

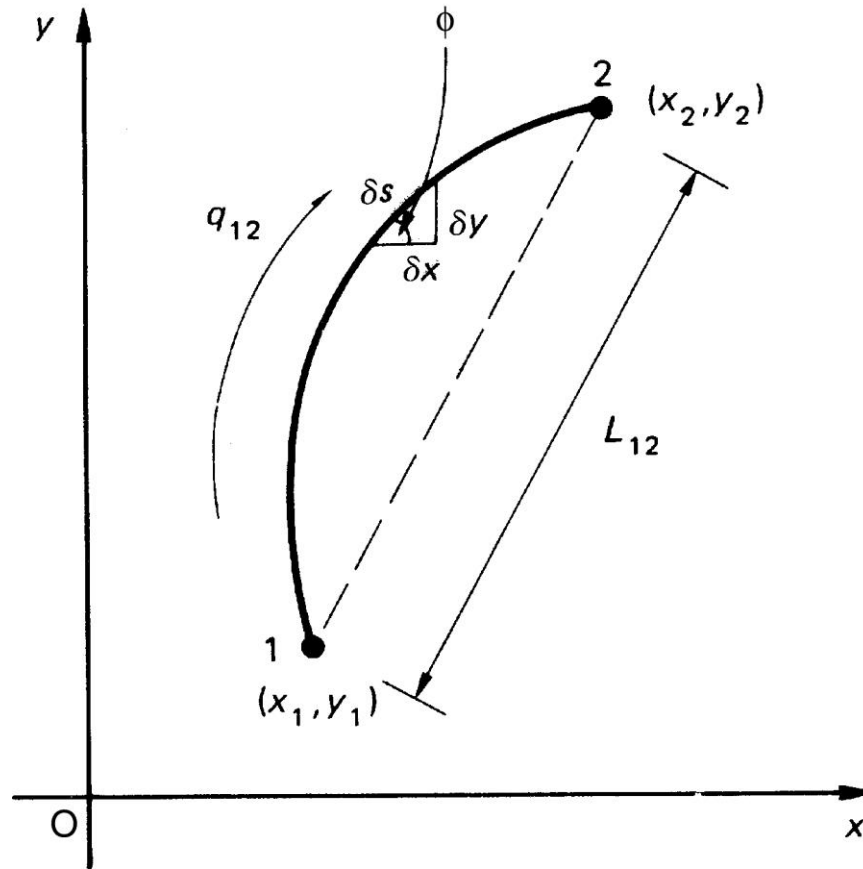


FIGURE 20.9 Curved Web with Constant Shear Flow

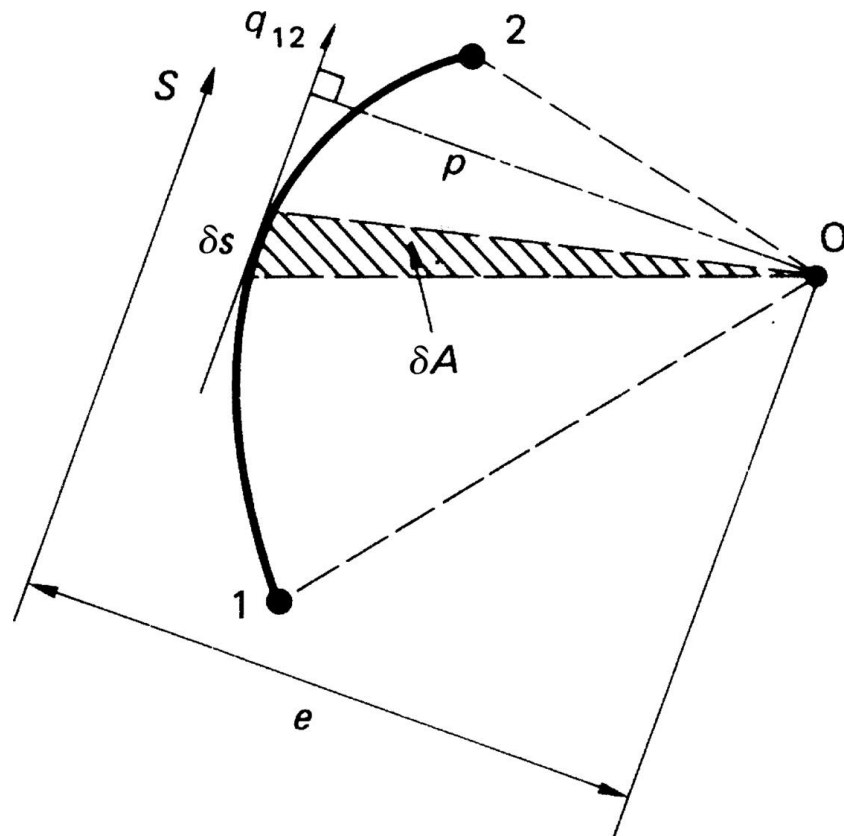


FIGURE 20.10 Moment Produced by a Constant Shear Flow

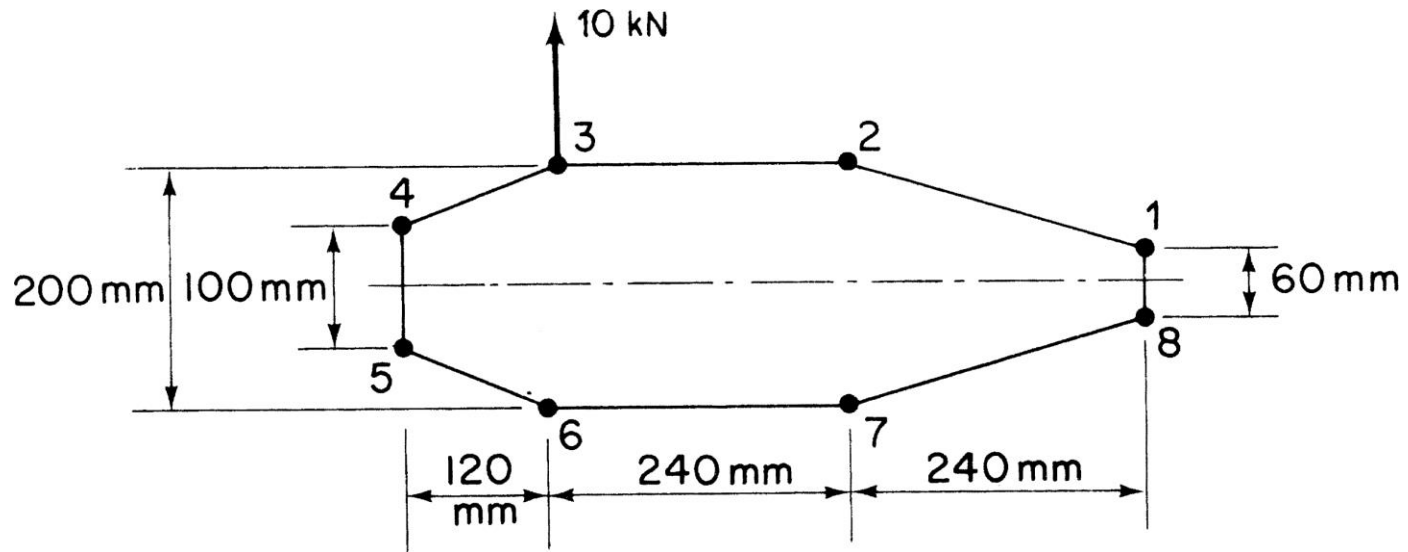


FIGURE 20.11 Closed Section of Beam of Example 20.4

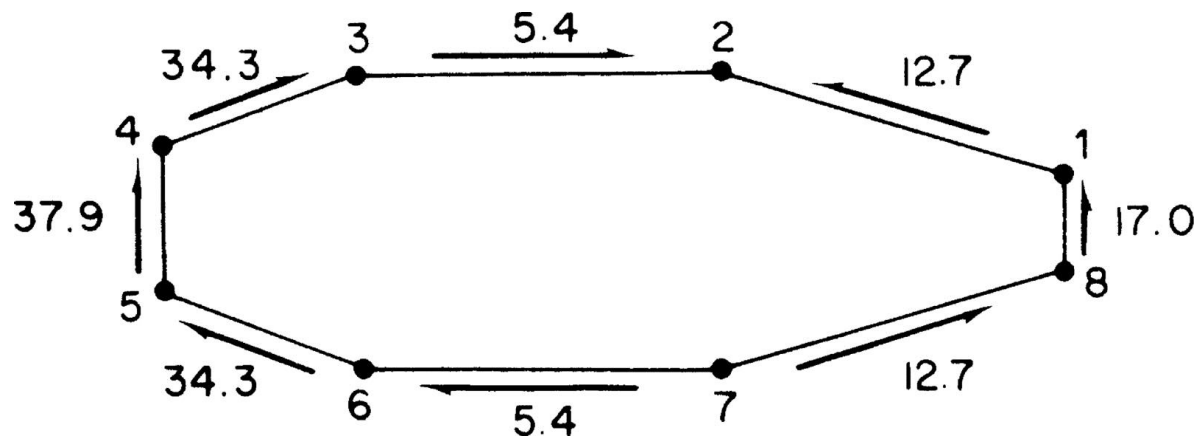


FIGURE 20.12 Shear Flow Distribution N/mm in Walls of the Beam Section of Example 20.4

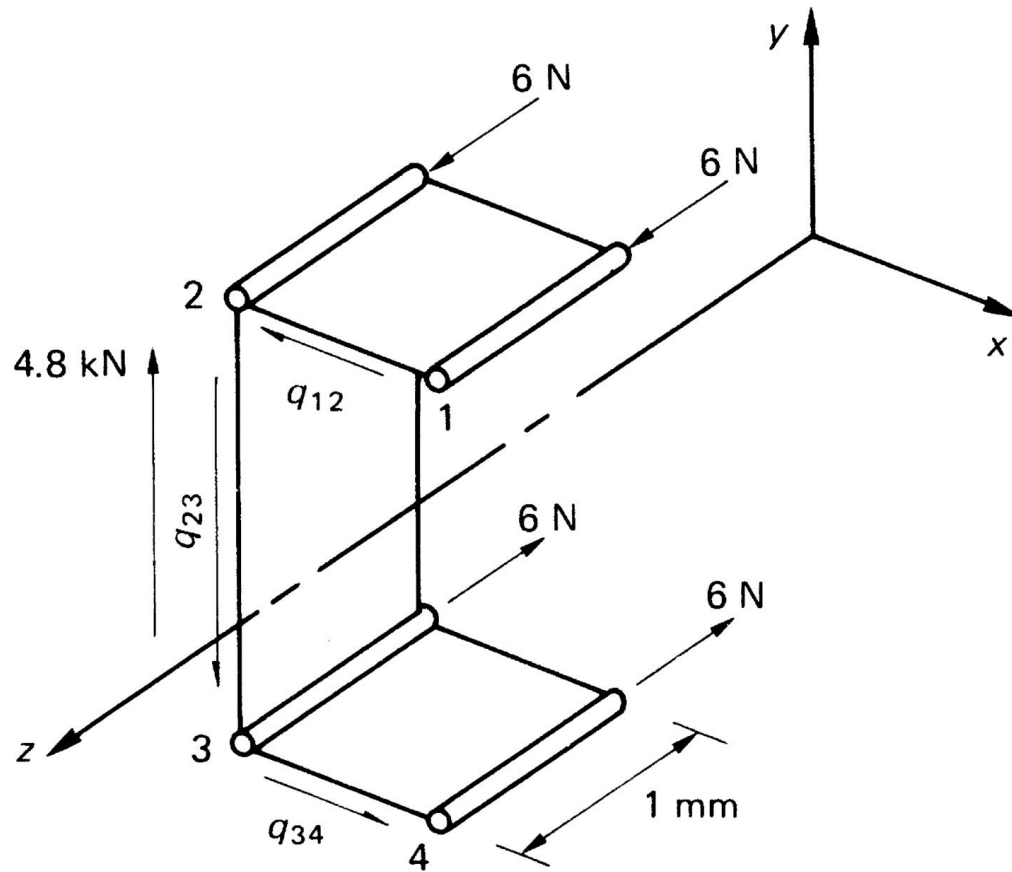


FIGURE 20.13 Alternative Solution to Example 20.3

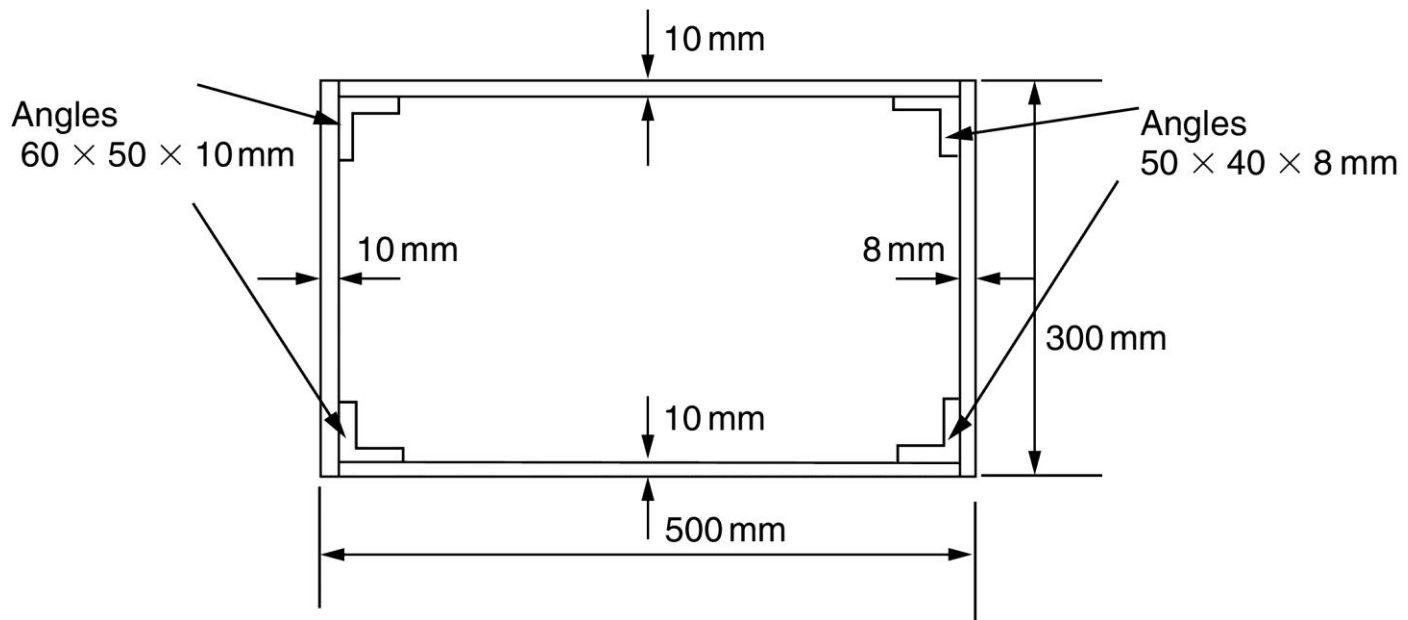


FIGURE P.20.1

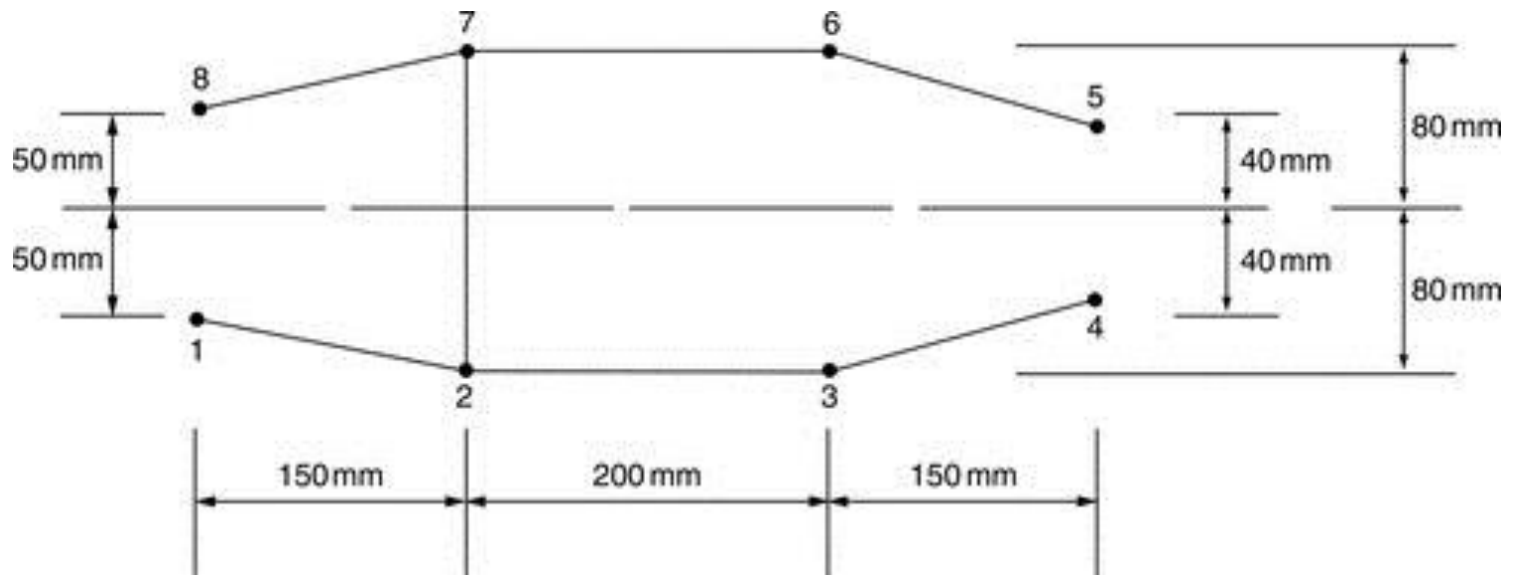


FIGURE P.20.2

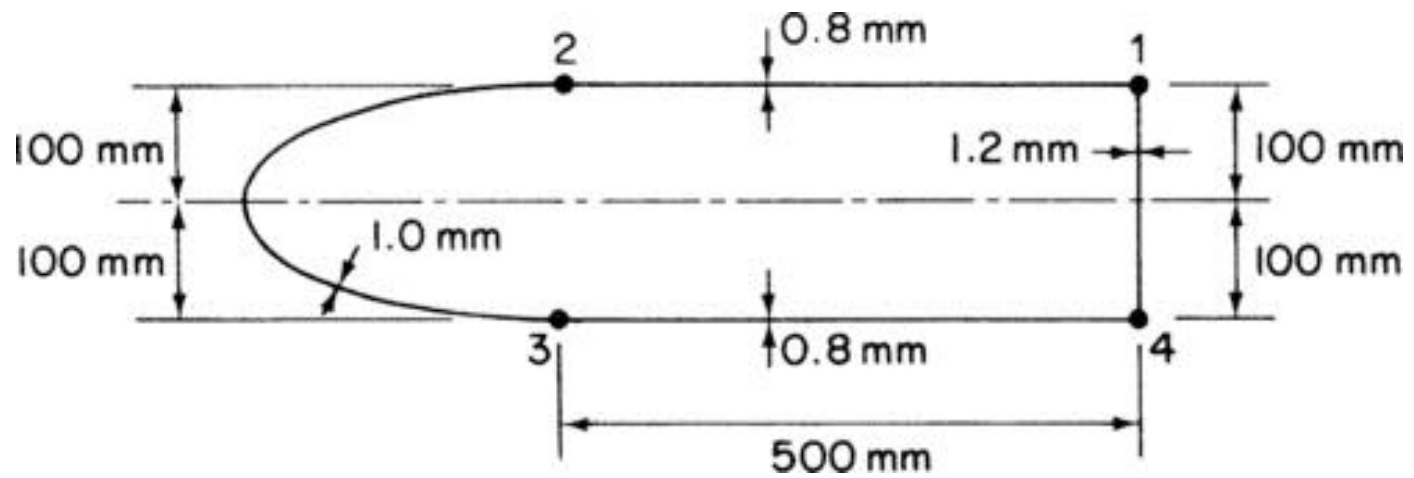


FIGURE P.20.3

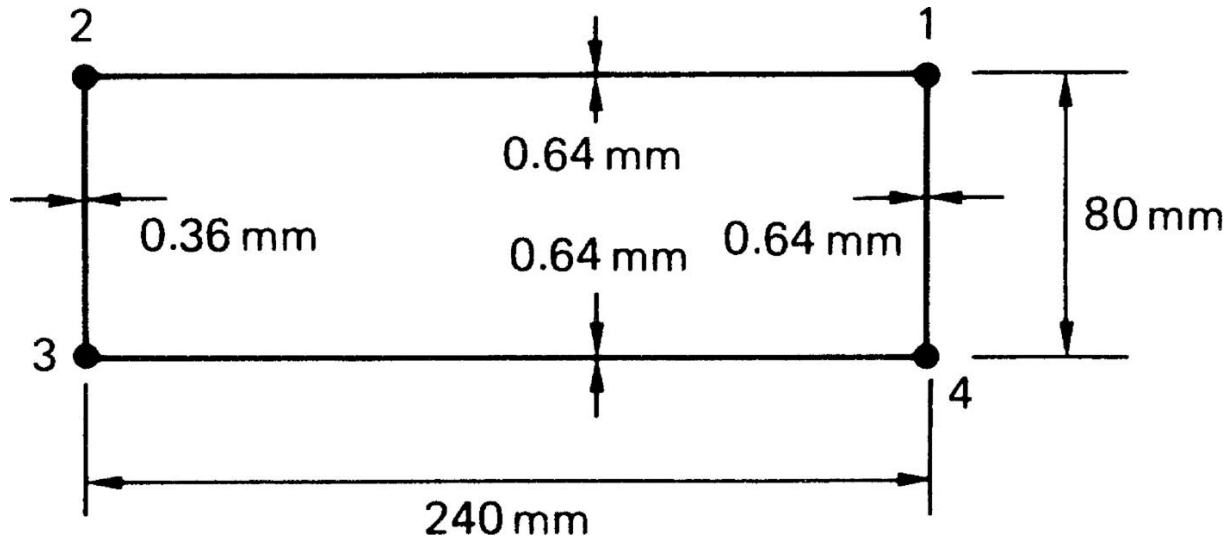
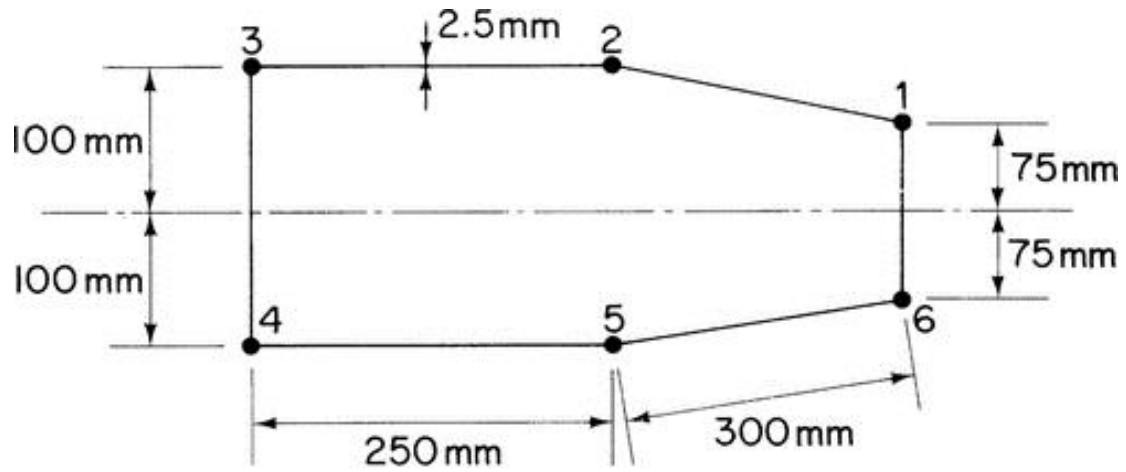
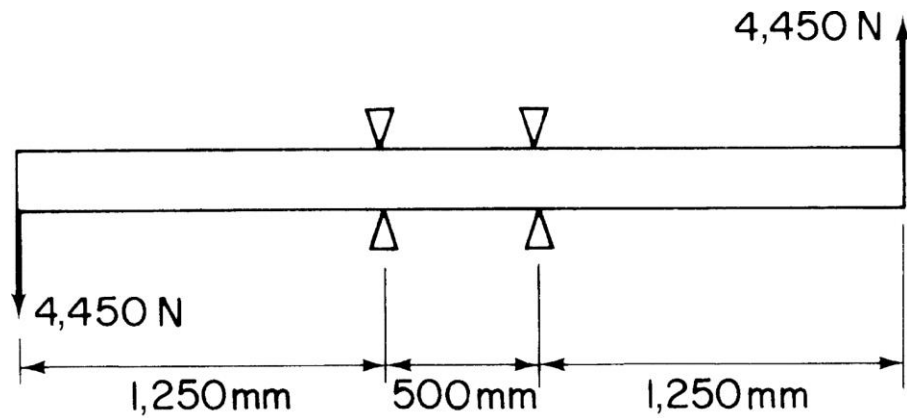


FIGURE P.20.4



(a)



(b)

FIGURE P.20.5

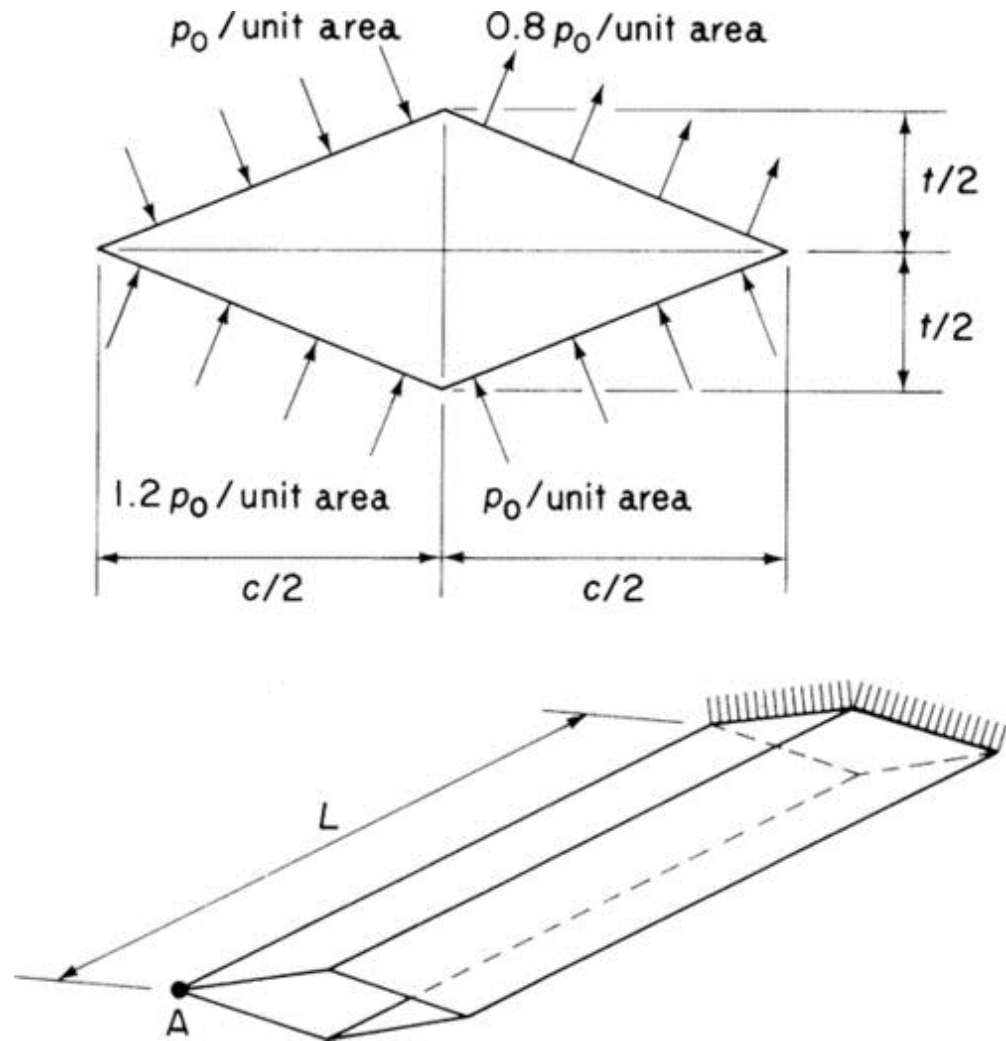


FIGURE P.20.6

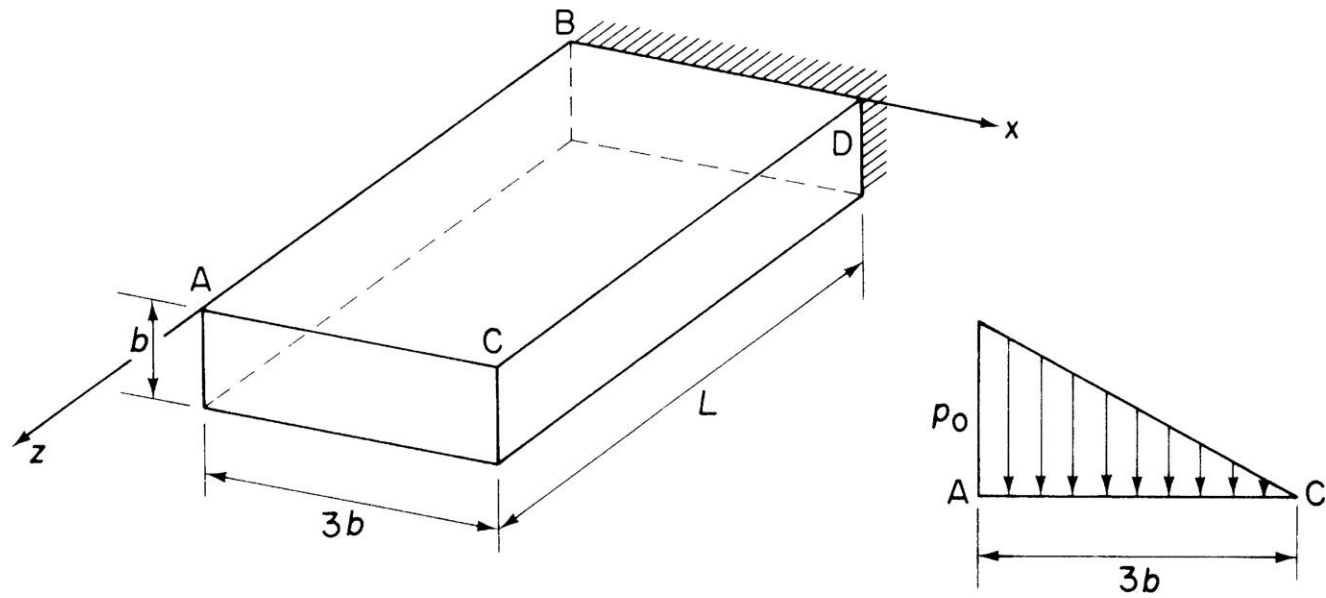


FIGURE P.20.7