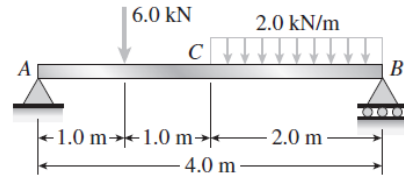


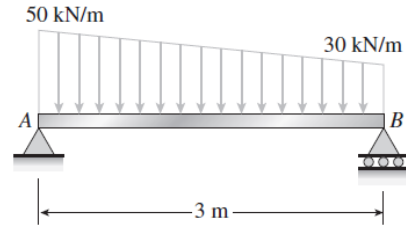
Homework #6

Problem 4.3-2 Determine the shear force V and bending moment M at the midpoint C of the simple beam AB shown in the figure.

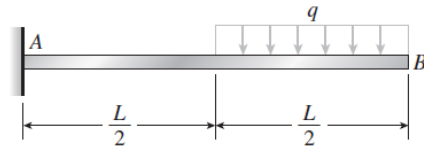


Problem 4.3-12 A simply supported beam AB supports a trapezoidally distributed load (see figure). The intensity of the load varies linearly from 50 kN/m at support A to 30 kN/m at support B .

Calculate the shear force V and bending moment M at the midpoint of the beam.

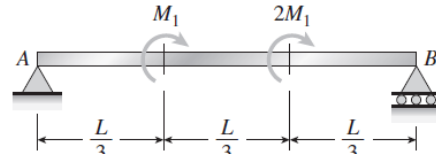


Problem 4.5-3 Draw the shear-force and bending-moment diagrams for a cantilever beam AB carrying a uniform load of intensity q over one-half of its length (see figure).



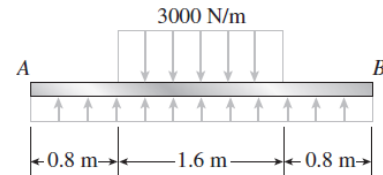
Problem 4.5-6 A simple beam AB subjected to clockwise couples M_1 and $2M_1$ acting at the third points is shown in the figure.

Draw the shear-force and bending-moment diagrams for this beam.



Problem 4.5-12 The beam AB shown in the figure supports a uniform load of intensity 3000 N/m acting over half the length of the beam. The beam rests on a foundation that produces a uniformly distributed load over the entire length.

Draw the shear-force and bending-moment diagrams for this beam.



Problem 4.5-26 The compound beam $ABCDE$ shown in the figure consists of two beams (AD and DE) joined by a hinged connection at D . The hinge can transmit a shear force but not a bending moment. The loads on the beam consist of a 4-kN force at the end of a bracket attached at point B and a 2-kN force at the midpoint of beam DE .

Draw the shear-force and bending-moment diagrams for this compound beam.

