EXERCISE 1

1.1 Determine the internal normal force, shear force, and bending moment acting at point C in the beam.

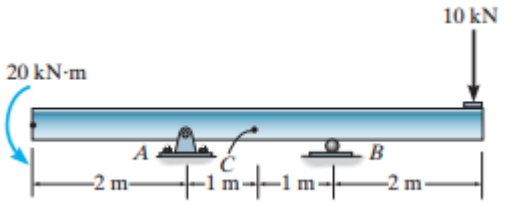

Fig 1.1

1.2 Determine the internal normal force, shear force, and bending moment acting at point C in the beam.

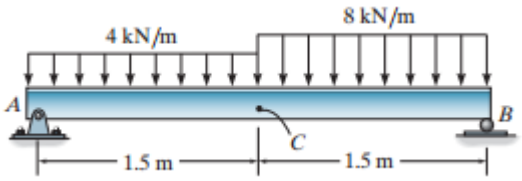

Fig 1.2

1.3 Determine the internal shear and moment in the beam as a function of x.

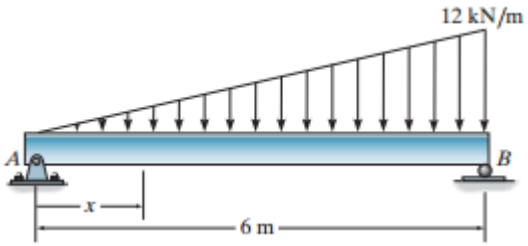

Fig 1.3

1.4 Determine the internal shear and moment in the beam as a function of x throughout the beam.

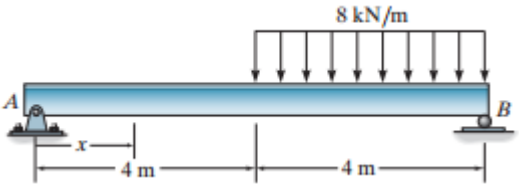

Fig 1.4

1.5 The beam AB will fail if the maximum internal moment at D reaches or the normal force in member BC becomes 1500 N. Determine the largest load w it can support.

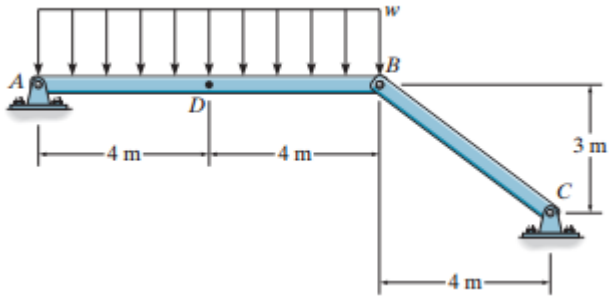

Fig 1.5