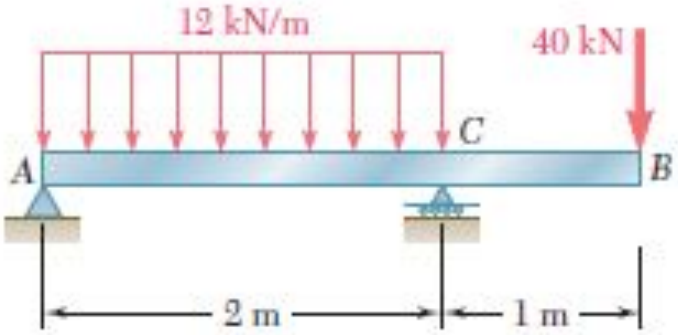
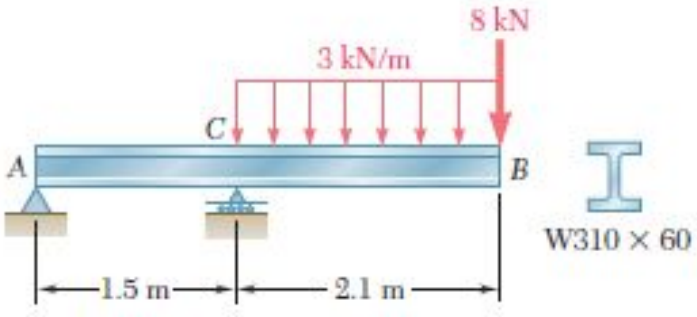
Tutorial 12: Shear Force and Bending Moment Diagram

Draw the shear force and bending-moment diagrams for the beam and loading shown, and determine the maximum absolute
value
(a) of the shear force,
(b) of the bending moment.



For the beam and loading shown, determine the maximum normal stress due to bending on a transverse section at C.

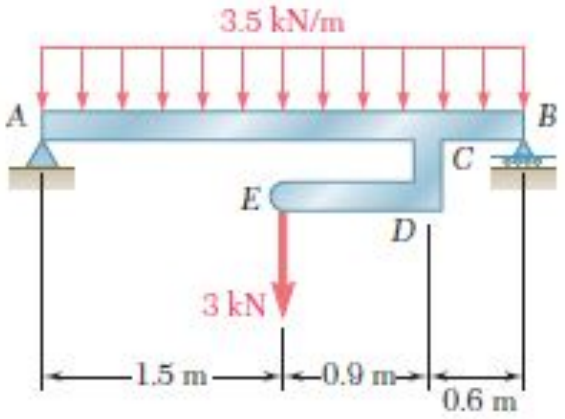


Designation	Area (mm^2)	I_X (10^6 mm^4)	S_X (10^3 mm^3)	I_Y (10^6 mm^4)	S_Y (10^3 mm^3)
W310 * 60	7590	129	851	18.3	180

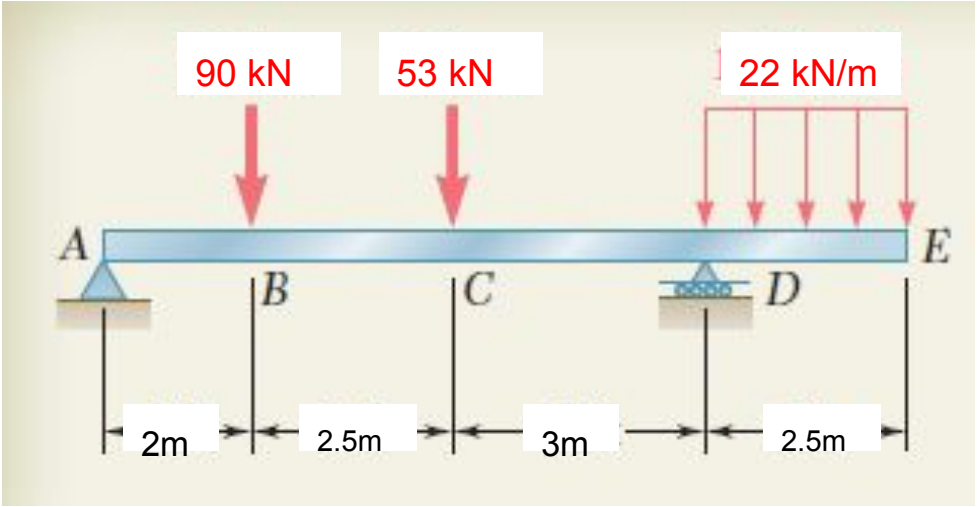
Draw the shear force and bending-moment diagrams for the beam and loading shown, and determine the maximum absolute value

(a) of the shear,

(b) of the bending moment



Draw the shear and bending-moment diagrams for the beam and loading A E shown.



For the beam and loading shown, determine
(a) the equations defining the shear
and bending moment at any point, (b) the shear and bending moment at points C, D, and E.