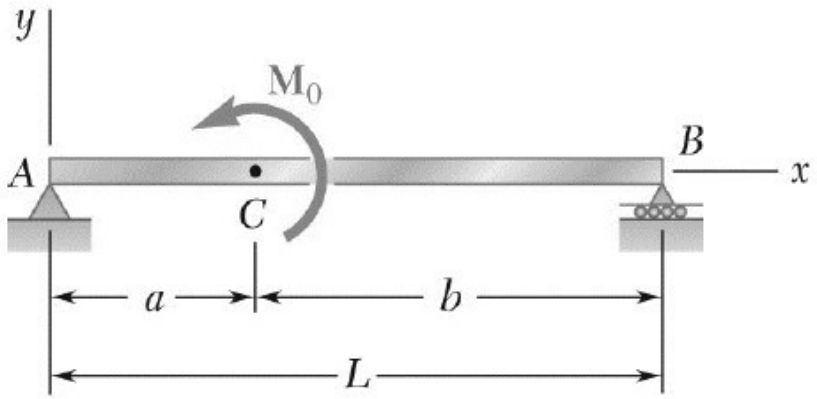
ME 224 MECH. OF MAT.

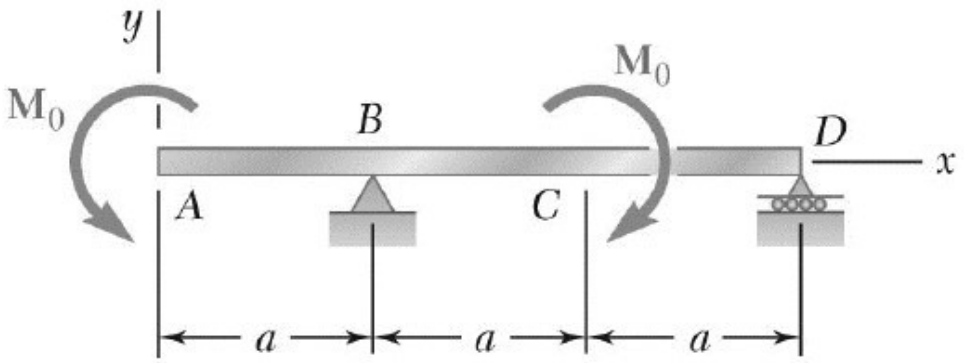
PROBLEM HOUR X

Q1) For the beam and loading shown, determine (a) the equation of the elastic curve, (b) the slope at end A, (c) the deflection of point C.

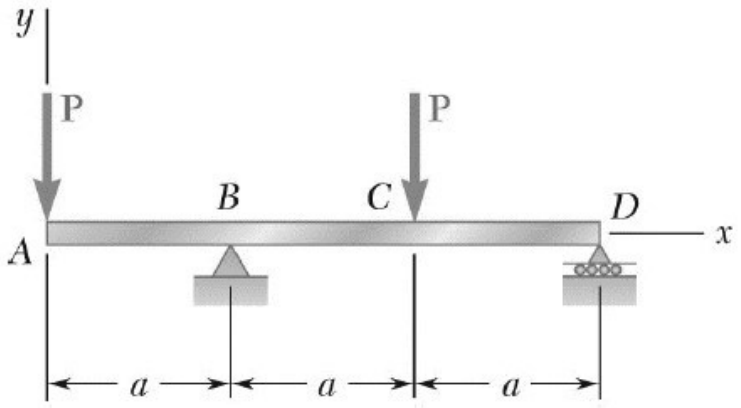


$[x = 0,\ y = 0]$ $[x = L,\ y = 0]$

Q2) For the beam and loading shown, determine (a) the deflection end A, (b) the deflection at point C, (c) the slope at end D.

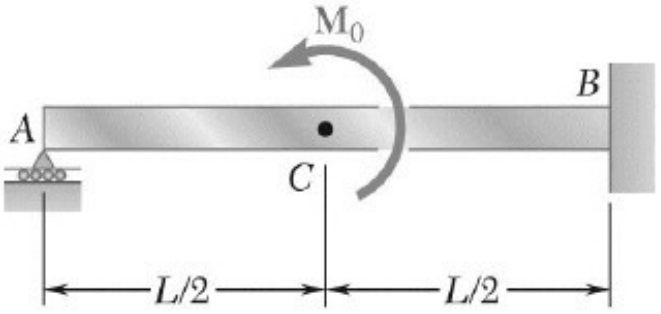


Q3) For the beam and loading shown, determine (a) the deflection at end A, (b) the deflection at point C, (c) the slope at end D.



$[x = a,\ y = 0]$ $[x = 3a,\ y = 0]$

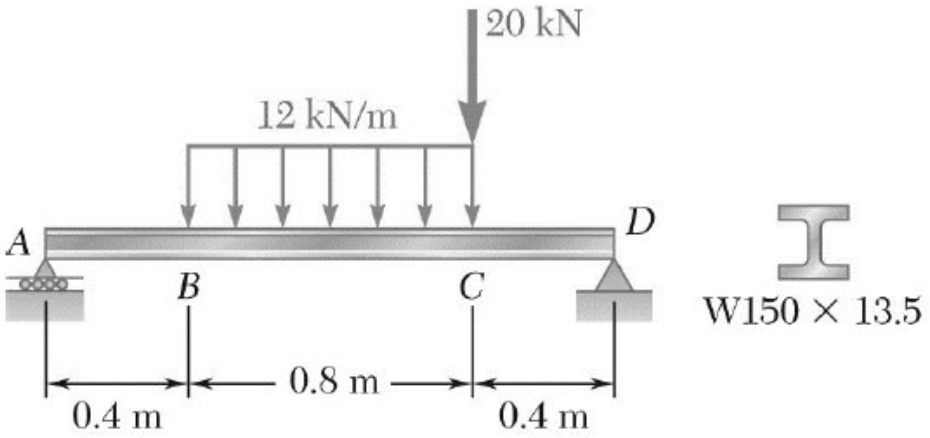
Q4) For the beam and loading shown, determine (a) the reaction at the roller support, (b) the deflection at point C.



$[x = 0,\ y = 0]$ $\left[x = L,\ \frac{dy}{dx} = 0\right]$

$[x = L,\ y = 0]$

Q5) For the beam and loading shown, determine (a) the slope at end A, (b) the deflection at point C. Use E = 200 GPa.



W150 × 13.5