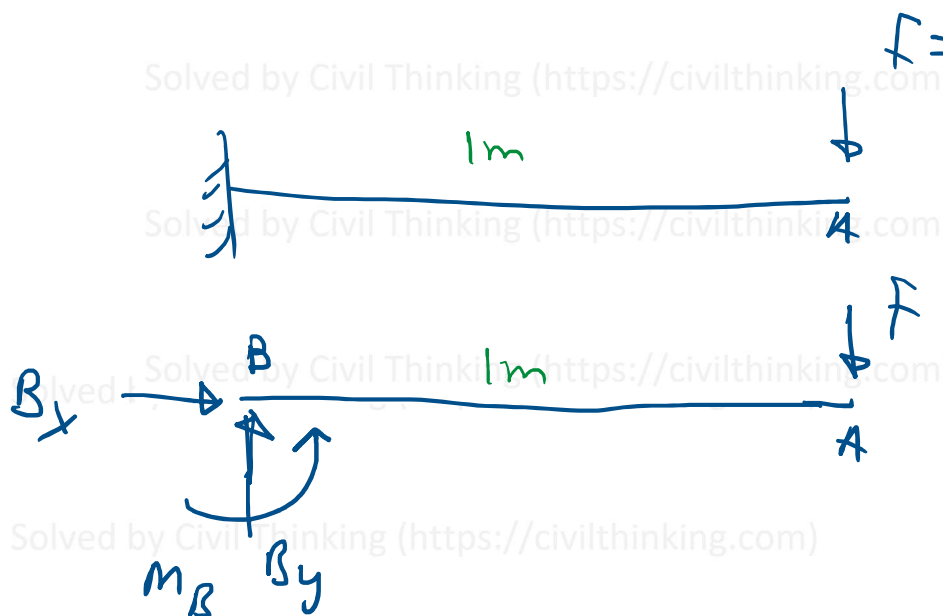


Shear and Moment diagram of cantilever with point load at free end

Draw Shear and Moment distribution of the given cantilever beam with point load at free end= $F=10\text{kN}$. Length, $L=1\text{m}$.



$$F = 10\text{kN}$$

$$\sum F_y = 0: B_y = F = 10\text{kN}$$

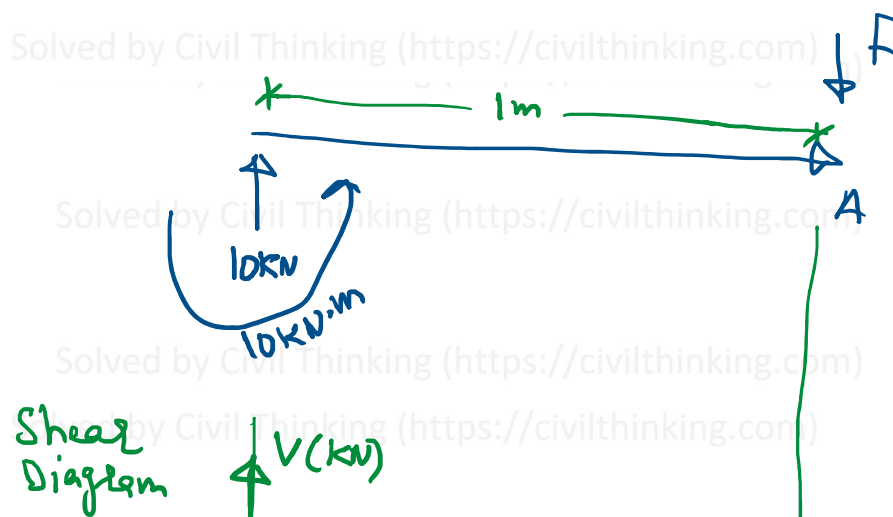
$$\sum F_x = 0: B_x = 0$$

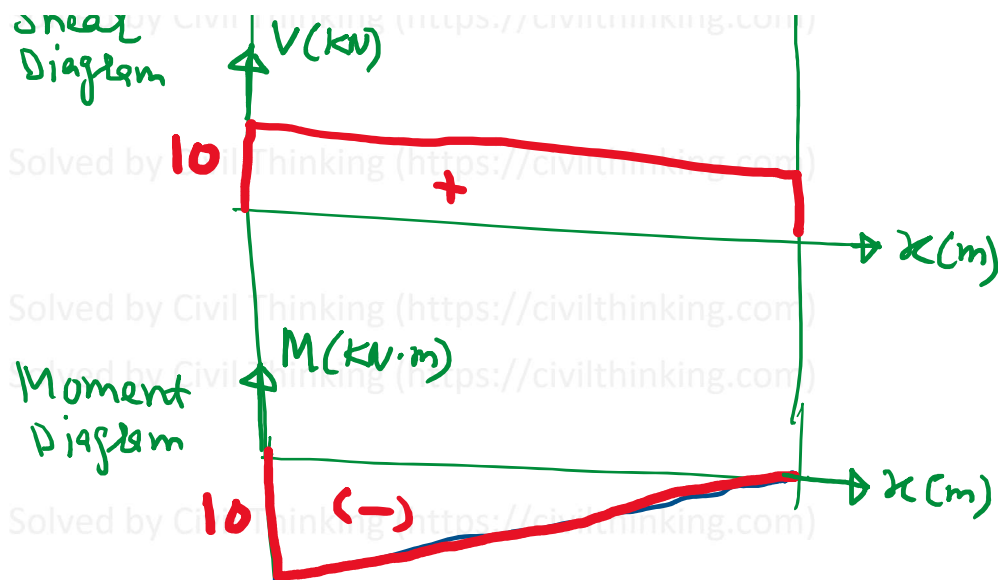
$$\sum M_B = 0$$

$$FL - M_B = 0$$

$$M_B = FL = F \times 1\text{m} = F$$

$$\Rightarrow M_B = 10\text{kN}\cdot\text{m}$$





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