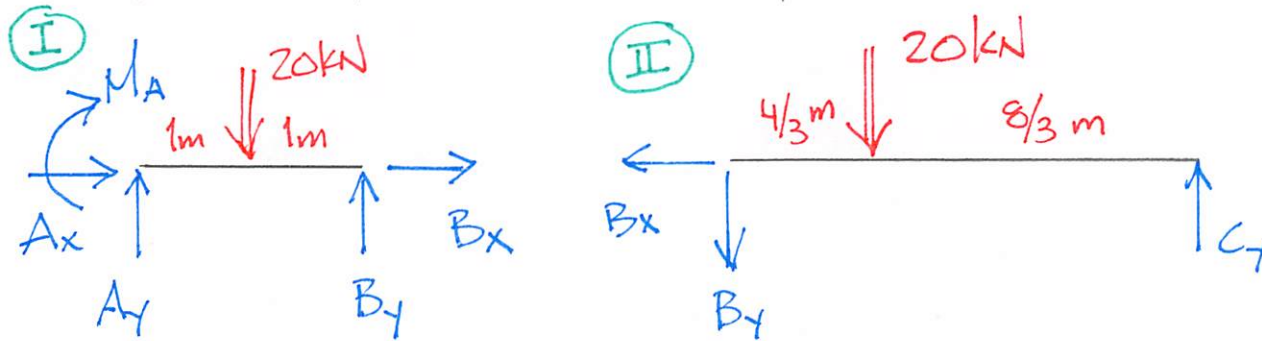
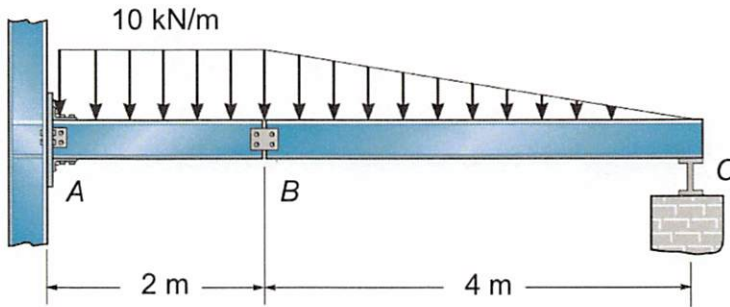


Determine the reactions at supports A and C. Assume A is fixed, B is a hinge, and C is a roller.



$$\textcircled{\text{II}} \quad \begin{aligned} \sum M_B = 0 &= -20 \text{ kN} \left(\frac{4}{3} \text{ m} \right) + C_y (4 \text{ m}) \\ C_y &= \frac{20}{3} \text{ kN} \\ \sum F_y = 0 &= C_y - B_y - 20 \text{ kN} \\ B_y &= -\frac{40}{3} \text{ kN} \\ \sum F_x = 0 &= -B_x \end{aligned}$$

$$\textcircled{\text{I}} \quad \begin{aligned} \sum M_A = 0 &= B_y (2 \text{ m}) - 20 \text{ kN} (1 \text{ m}) - M_A \\ M_A &= -\frac{140}{3} \text{ kNm} \\ \sum F_y = 0 &= A_y + B_y - 20 \text{ kN} \\ A_y &= \frac{100}{3} \text{ kN} \\ \sum F_x = 0 &= A_x + B_x \\ A_x &= 0 \end{aligned}$$