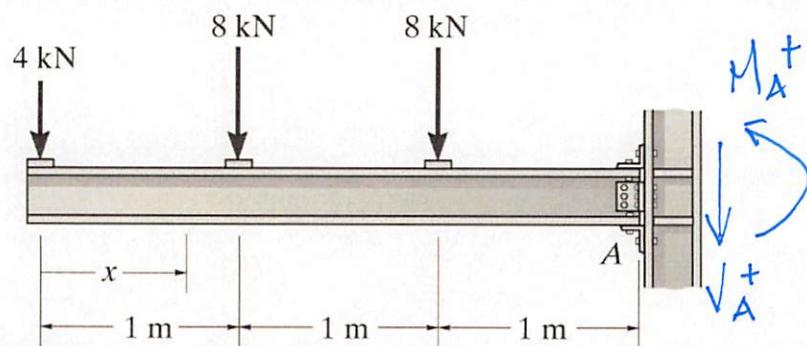


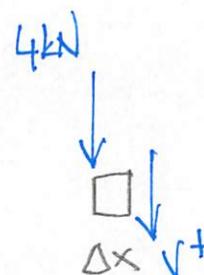
Example 4c-2 – Construct the shear force and bending moment diagrams.



$$\begin{aligned} \sum M_A = 0 &= M_A + 8kN(1m) + 8kN(2m) \\ &+ 4kN(3m) \end{aligned}$$

$$\underline{M_A = -36 \text{ kNm}}$$

$$\begin{aligned} \sum F_y = 0 &= -V_A - 8kN - 8kN - 4kN \\ V_A &= -20 \text{ kN} \end{aligned}$$



$$\begin{aligned} \sum F_y = 0 &= -V - 4 \text{ kN} \\ V &= -4 \text{ kN} \end{aligned}$$

$$\Delta V = \int w dx \quad \frac{\partial V}{\partial x} = w$$

$$\Delta M = \int V dx \quad \frac{\partial M}{\partial x} = V$$

$$\underline{M_{MAX} = -36 \text{ kNm} @ x = 3 \text{ m}}$$

