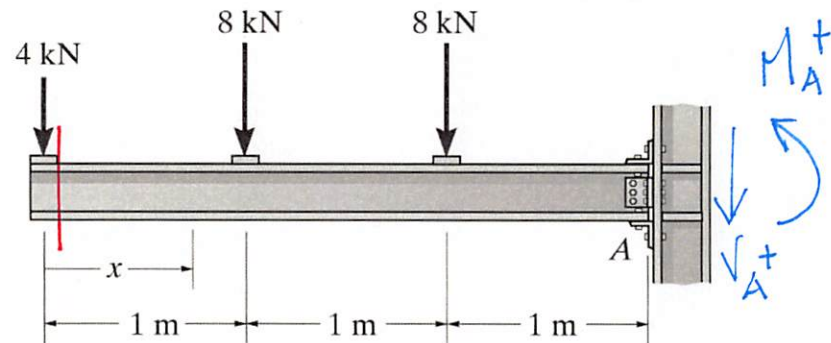


Example 4c-2 – Construct the shear force and bending moment diagrams.



$$+\uparrow \sum F_y = 0 = -V - 4 \text{ kN} \quad \underline{V = -4 \text{ kN}}$$

$$+\circlearrowleft \sum M_A = 0 = M_A + 8 \text{ kN}(1 \text{ m} + 2 \text{ m}) + 4 \text{ kN}(3 \text{ m})$$

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

$$+\uparrow \sum F_y = 0 = -V_A - 8 \text{ kN} - 8 \text{ kN} - 4 \text{ kN}$$

$$\underline{V_A = -20 \text{ kN}}$$

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

$$\Delta V = P$$

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

$$\underline{\underline{M_{\text{MAX}} = -36 \text{ kNm @ A}}}$$

