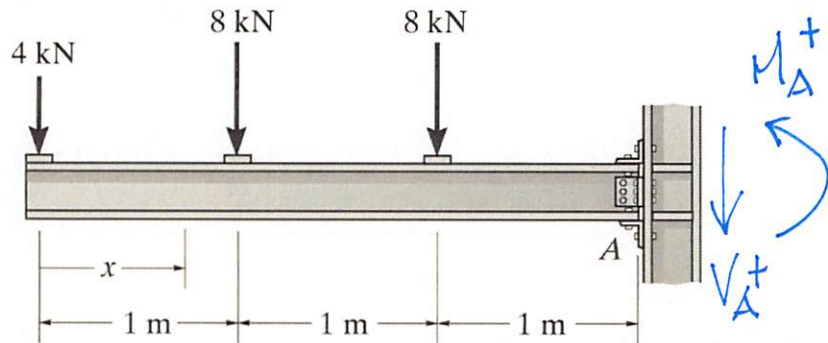


Example 4c-2 – Construct the shear force and bending moment diagrams.



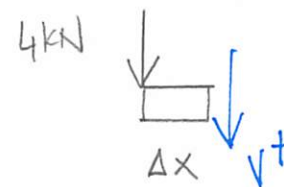
$$\sum M_A = 0 = M_A + 8\text{ kN}(1\text{ m} + 2\text{ m}) + 4\text{ kN}(3\text{ m})$$

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

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

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

FBD LEFT END



$$\sum F_y = 0 = -V - 4\text{ kN}$$

$$V = -4\text{ kN}$$

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

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

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

