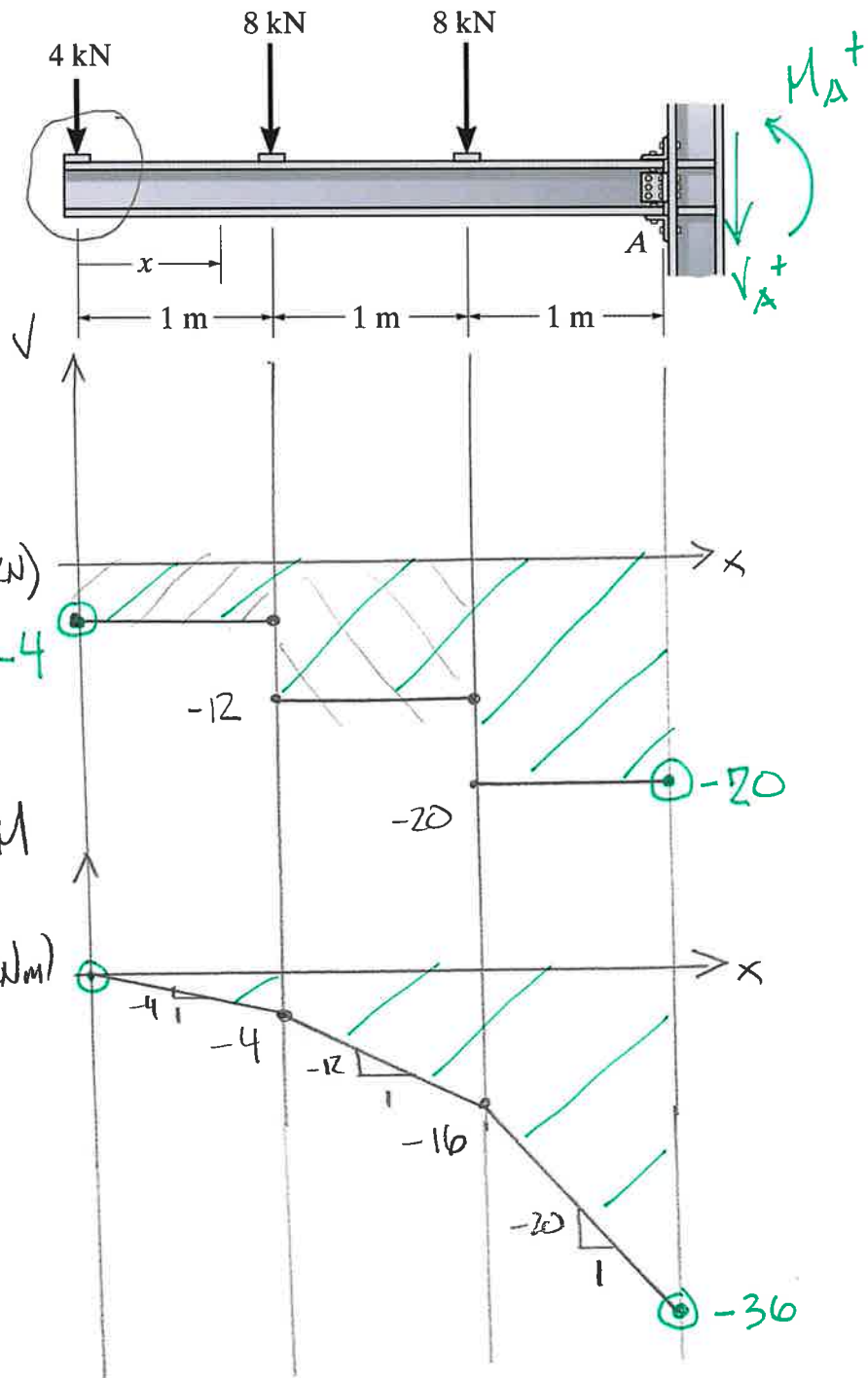


Example 4c-2 – Construct the shear force and bending moment diagrams.

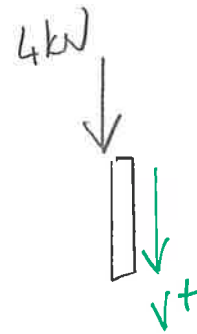


$$\sum M_A = 0 = M_A + 8 \text{ kN}(1\text{m} + 2\text{m}) + 4 \text{ kN}(3\text{m})$$

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

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

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



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

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

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