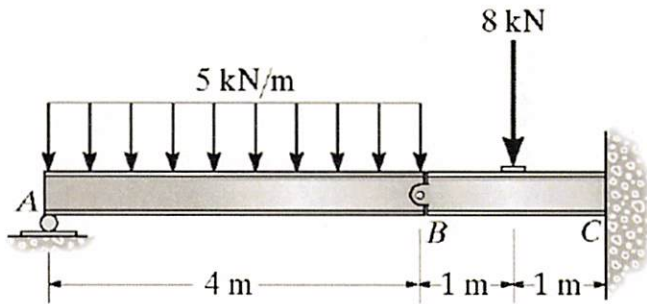
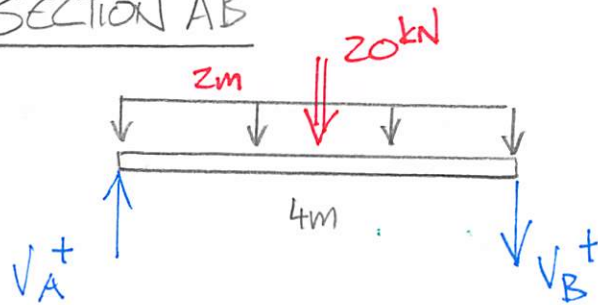


Example 4c-10 – Construct the shear force and bending moment diagrams.



SECTION AB



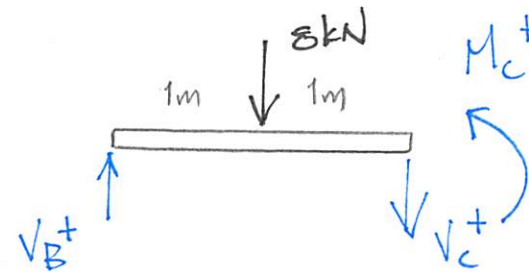
$$\sum \curvearrowright M_B = 0 = 20 \text{ kN}(zm) - V_A(4 \text{ m})$$

$$\underline{V_A = 10 \text{ kN}}$$

$$+\uparrow \sum F_y = 0 = V_A - V_B - 20 \text{ kN}$$

$$\underline{V_B = -10 \text{ kN}}$$

SECTION BC



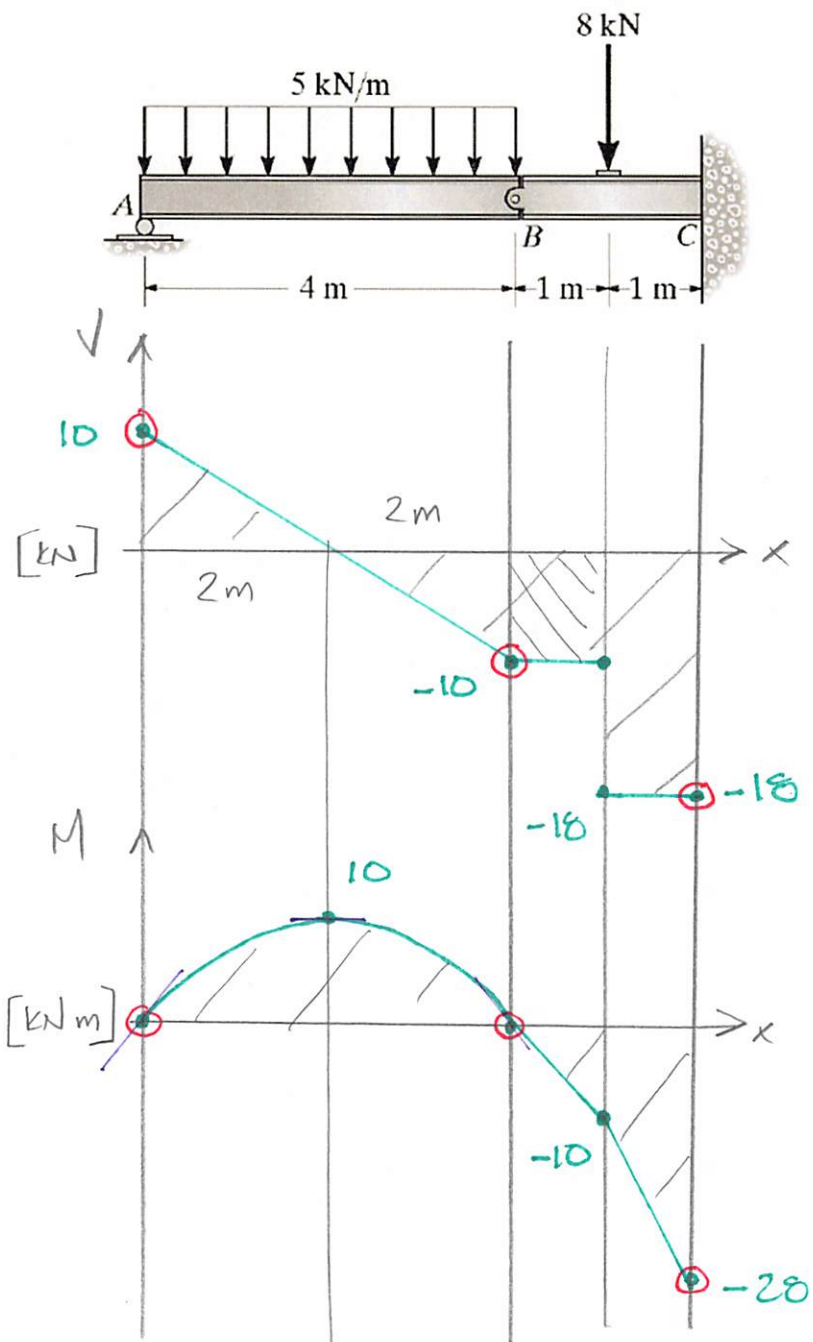
$$\sum \curvearrowright M_C = 0 = M_C + 8 \text{ kN}(1 \text{ m}) - V_B(2 \text{ m})$$

$$\underline{M_C = -28 \text{ kNm}}$$

$$+\uparrow \sum F_y = 0 = V_B - V_C - 8 \text{ kN}$$

$$\underline{V_C = -18 \text{ kN}}$$

Example 4c-10 – Construct the shear force and bending moment diagrams.



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

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

$$\underline{\underline{M_{MAX} = -28 \text{ kNm @ C}}}$$