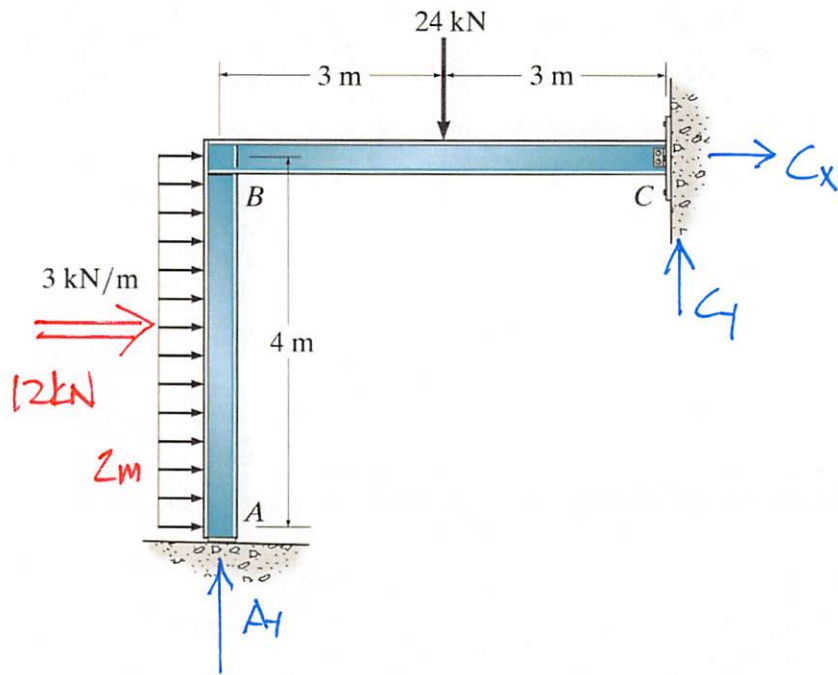


Example 4d-3: Draw the shear and moment diagrams for the following frame:

1/2



$$\begin{aligned} \sum M_C = 0 &= 24 \text{ kN}(3 \text{ m}) + 12 \text{ kN}(2 \text{ m}) \\ &\quad - A_y(6 \text{ m}) \end{aligned}$$

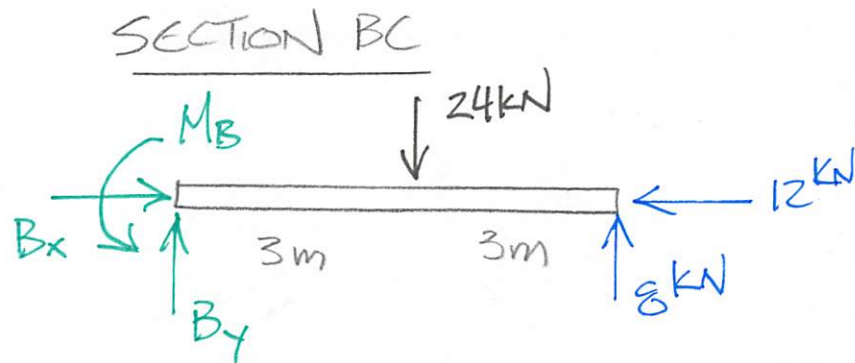
$$\underline{A_y = 16 \text{ kN}}$$

$$\sum F_y = 0 = A_y + C_y - 24 \text{ kN}$$

$$\underline{C_y = 8 \text{ kN}}$$

$$\sum F_x = 0 = C_x + 12 \text{ kN}$$

$$\underline{C_x = -12 \text{ kN}}$$



$$\sum M_B = 0 = M_B - 24 \text{ kN}(3 \text{ m}) + 8 \text{ kN}(6 \text{ m})$$

$$\underline{M_B = 24 \text{ kN}\cdot\text{m}}$$

$$\sum F_y = 0 = B_y - 24 \text{ kN} + 8 \text{ kN}$$

$$\underline{B_y = 16 \text{ kN}}$$

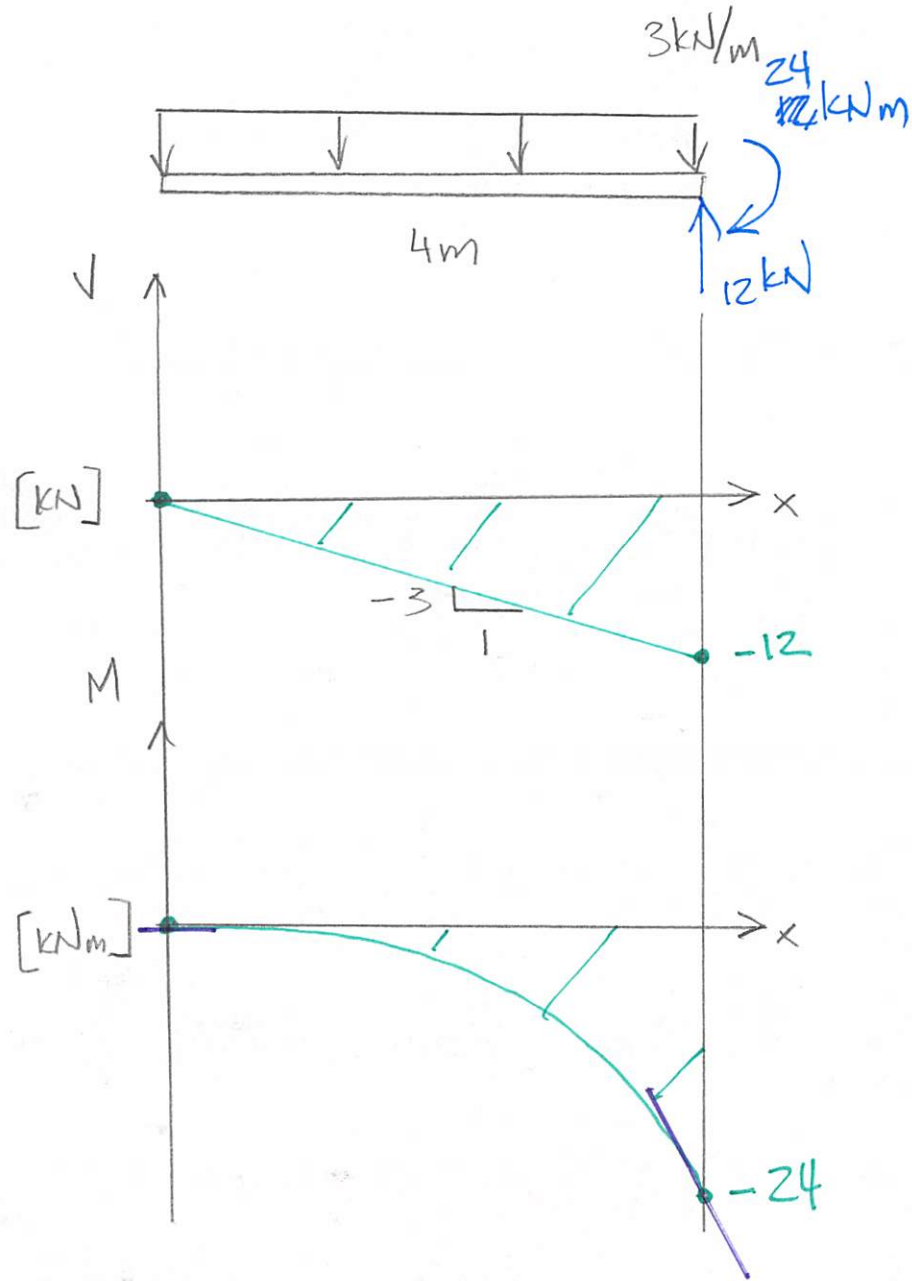
$$\sum F_x = 0 = B_x - 12 \text{ kN}$$

$$\underline{B_x = 12 \text{ kN}}$$

Example 4d-3: Draw the shear and moment diagrams for the following frame:

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SECTION AB



SECTION BC

