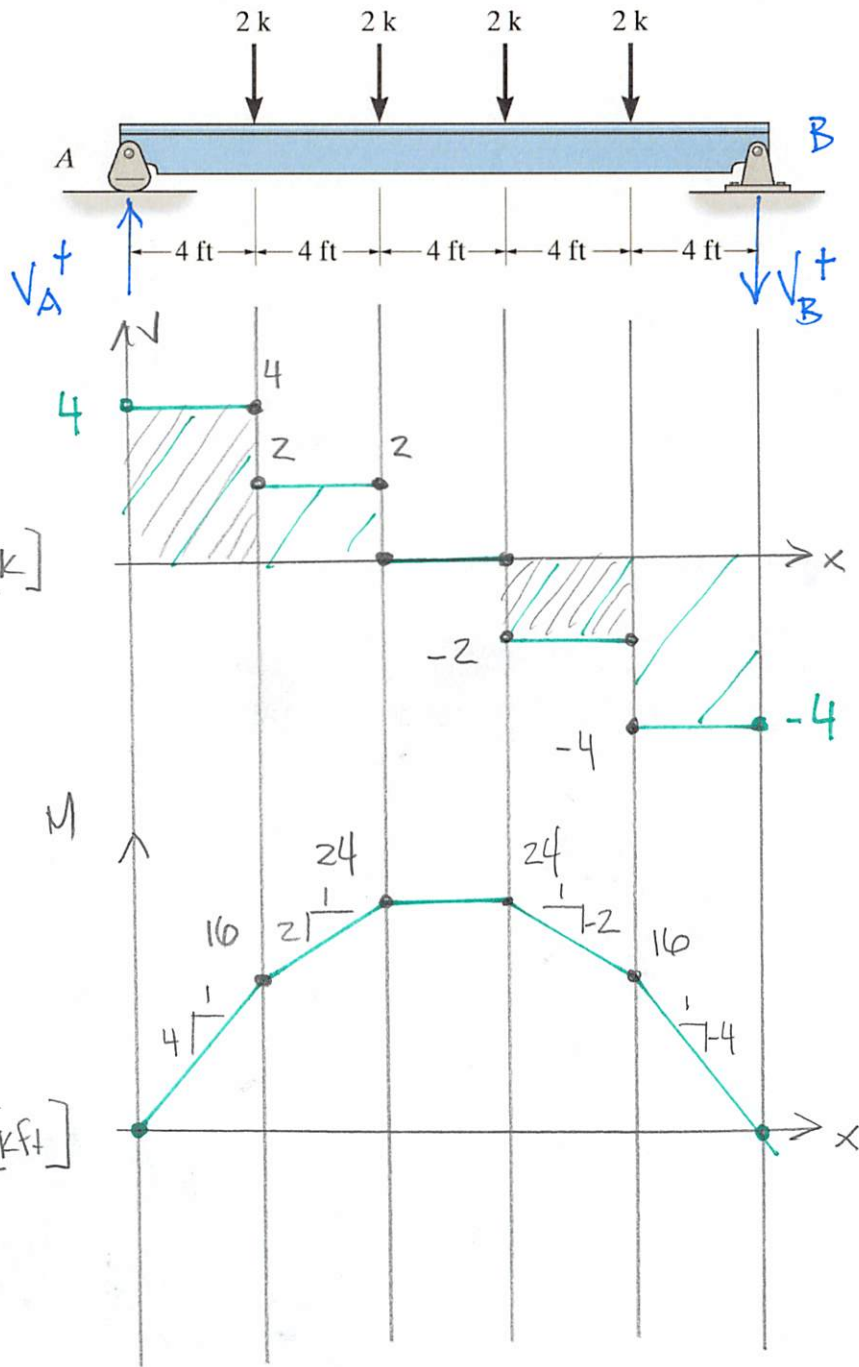


Example 4c-1 – Construct the shear force and bending moment diagrams.



$$\sum M_B = 0 = 2^k(4\text{ ft} + 8\text{ ft} + 12\text{ ft} + 16\text{ ft}) - V_A(20\text{ ft})$$

$$V_A = 4^k$$

$$\sum F_y = 0 = V_A - V_B - 2^k - 2^k - 2^k - 2^k$$

$$V_B = -4^k$$

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

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

$$M_{\text{MAX}} = 24\text{ kft} \quad 8 \leq x \leq 12\text{ ft}$$