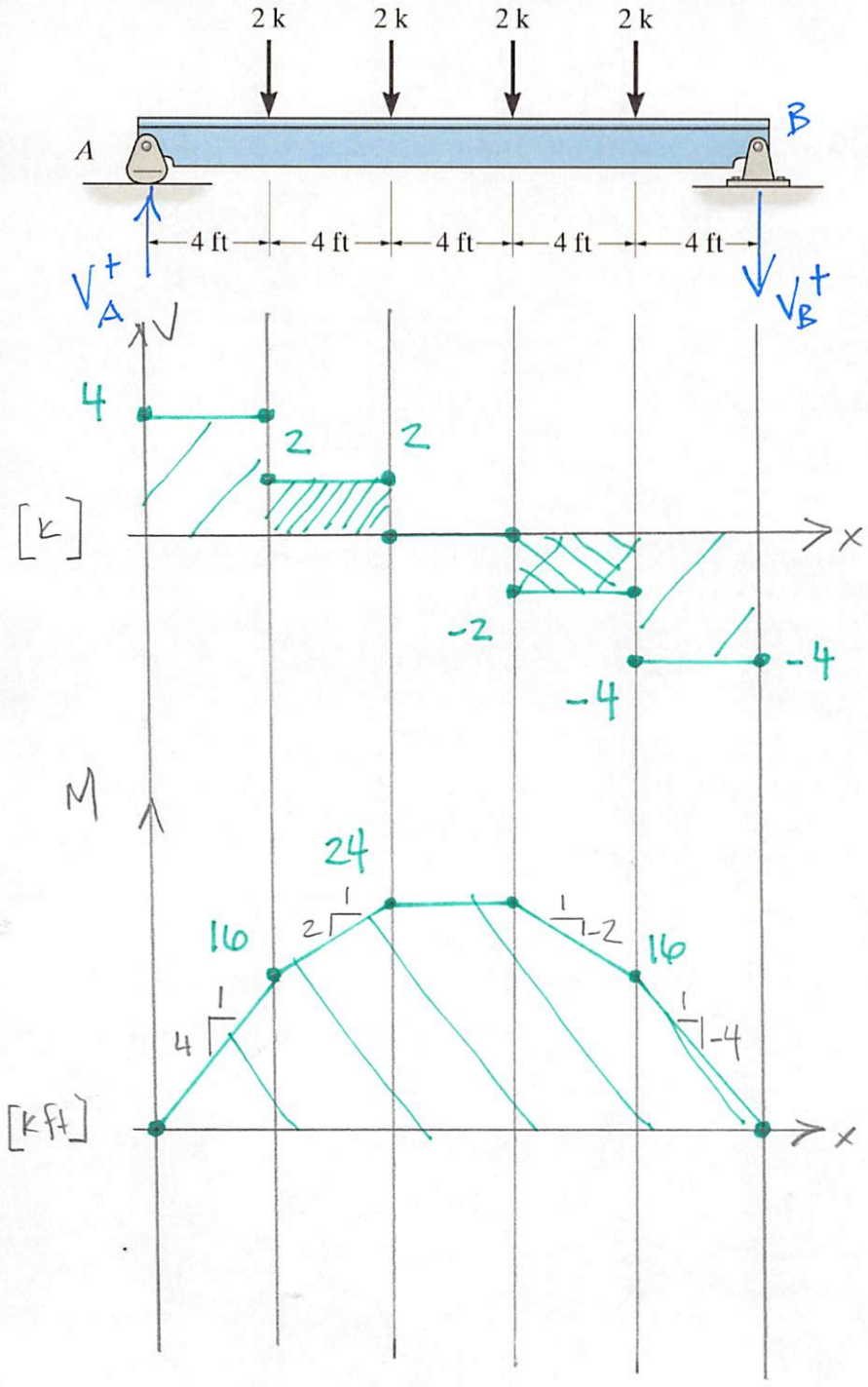
Example 4c-1 – Construct the shear force and bending moment diagrams.



$$\circlearrowleft + \sum M_B = 0 = 2^k(4' + 8' + 12' + 16') - V_A(20')$$

$$\underline{V_A = 4^k}$$

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

$$\underline{V_B = -4^k}$$

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

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

$$\underline{M_{MAX} = 24\,kft \quad 8' \le x \le 12'}$$