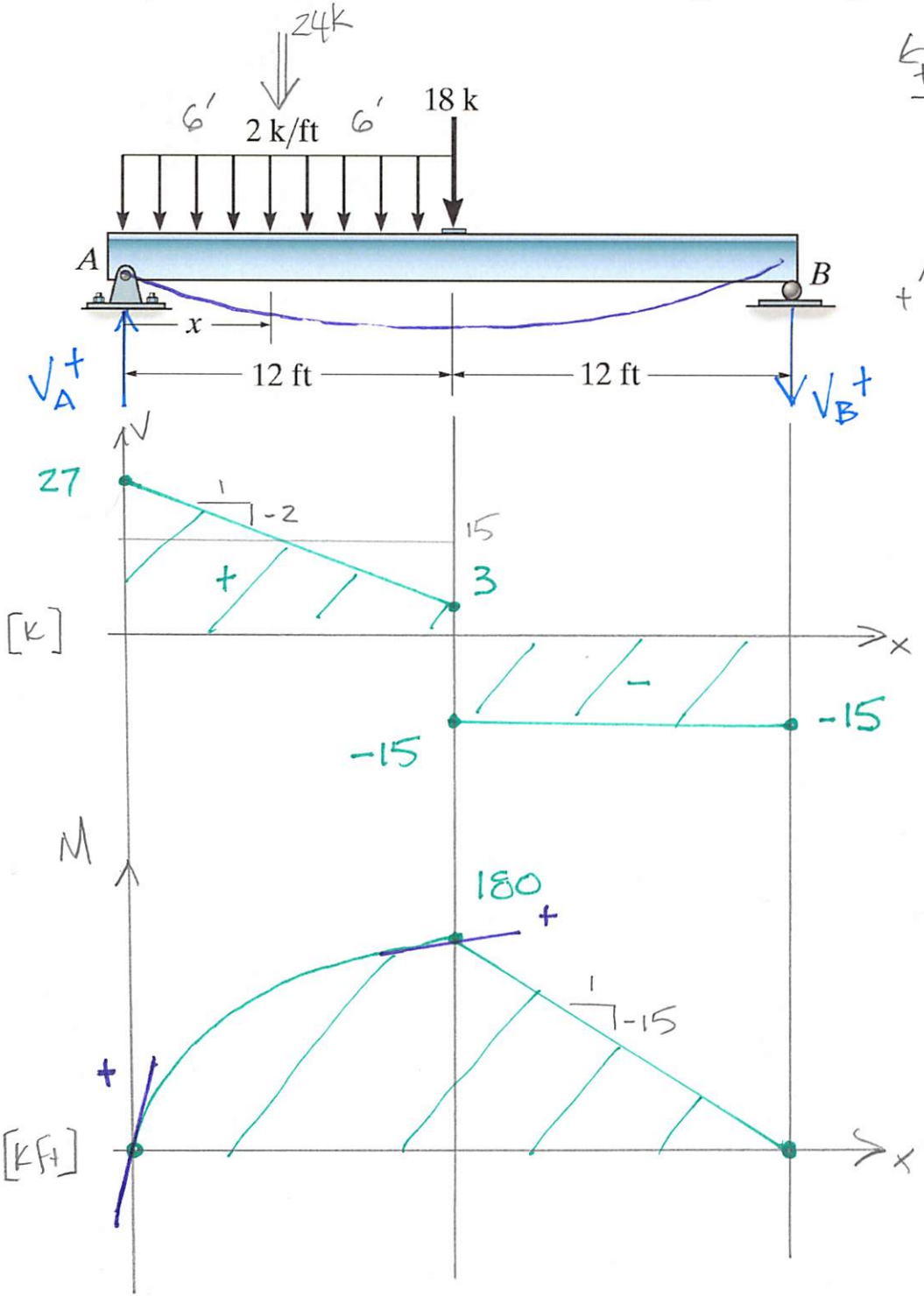
Example 4c-3 – Construct the shear force and bending moment diagrams.



$$\circlearrowleft + \sum M_B = 0 = 18^k(12\,ft) + 24k(18\,ft) - V_A(24\,ft)$$

$$\underline{V_A = 27^k}$$

$$+\uparrow \sum F_y = 0 = V_A - V_B - 24k - 18^k$$

$$\underline{V_B = -15^k}$$

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

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

$$\underline{M_{MAX} = 180k\,ft \;@\; x = 12\,ft}$$