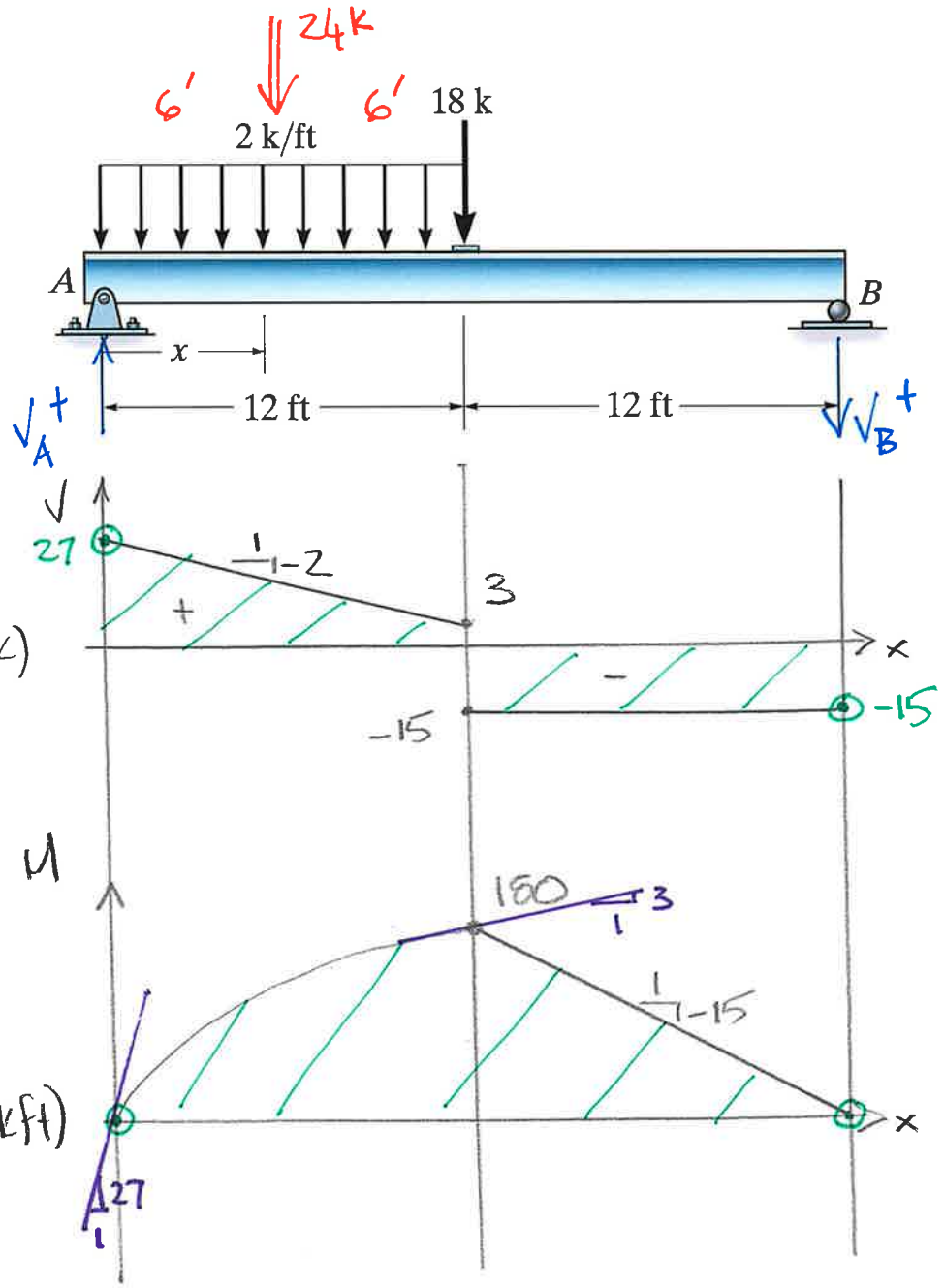
Example 4c-3 – Construct the shear force and bending moment diagrams.



$$\overset{+}{\circlearrowleft}\Sigma M_B = 0 = 18^k(12') + 24^k(18') - V_A(24')$$

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

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

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

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

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

$$\underline{\underline{M_{MAX} = 180\,kft \;@\; x = 12'}}$$