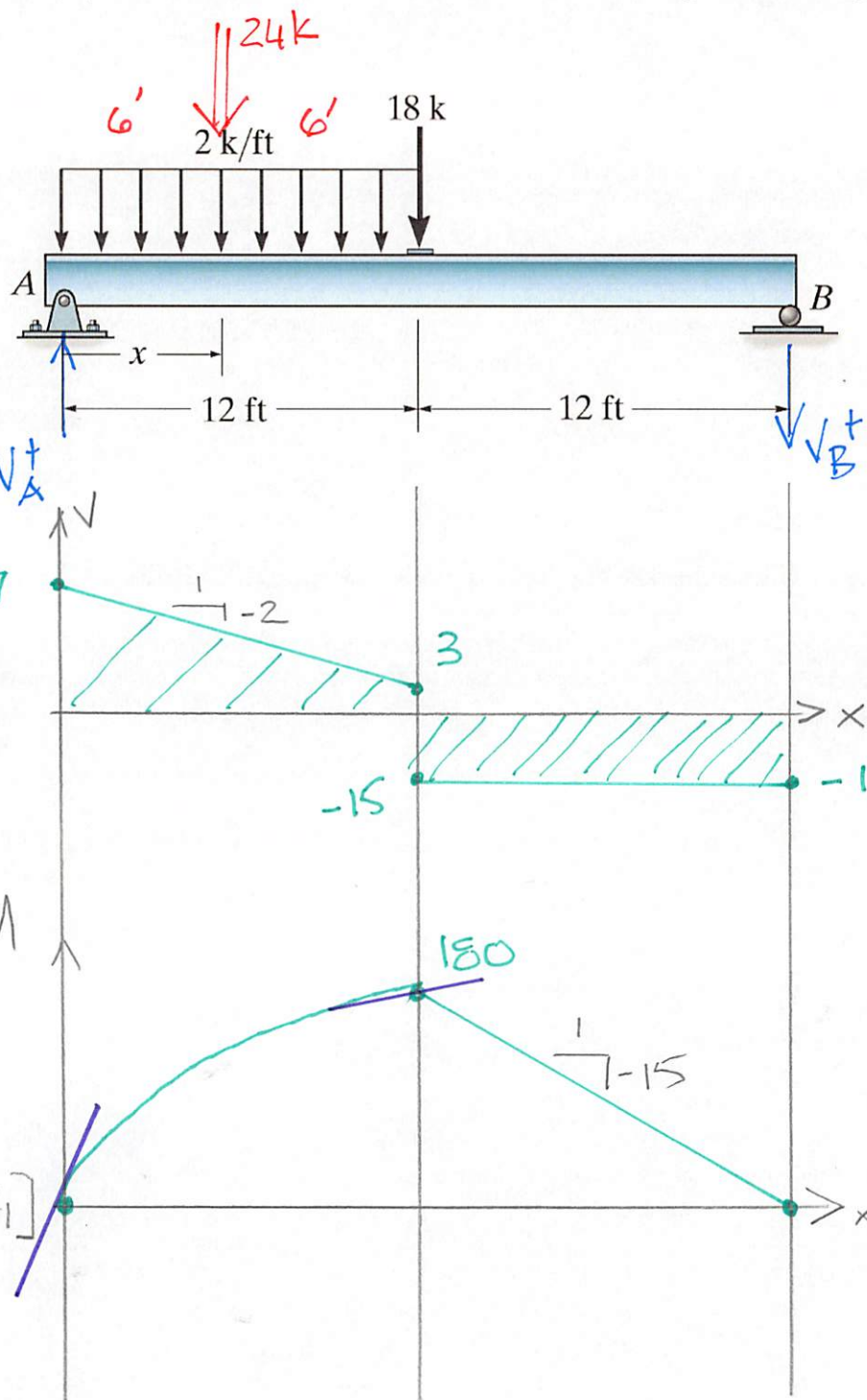


Example 4c-3 – Construct the shear force and bending moment diagrams.



$$\sum M_B = 0 = 18k(12') + 24k(18') - V_A(24')$$

$$V_A = 27k$$

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

$$V_B = -15k$$

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

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

$$M_{MAX} = 180k\text{-ft} @ x = 12'$$