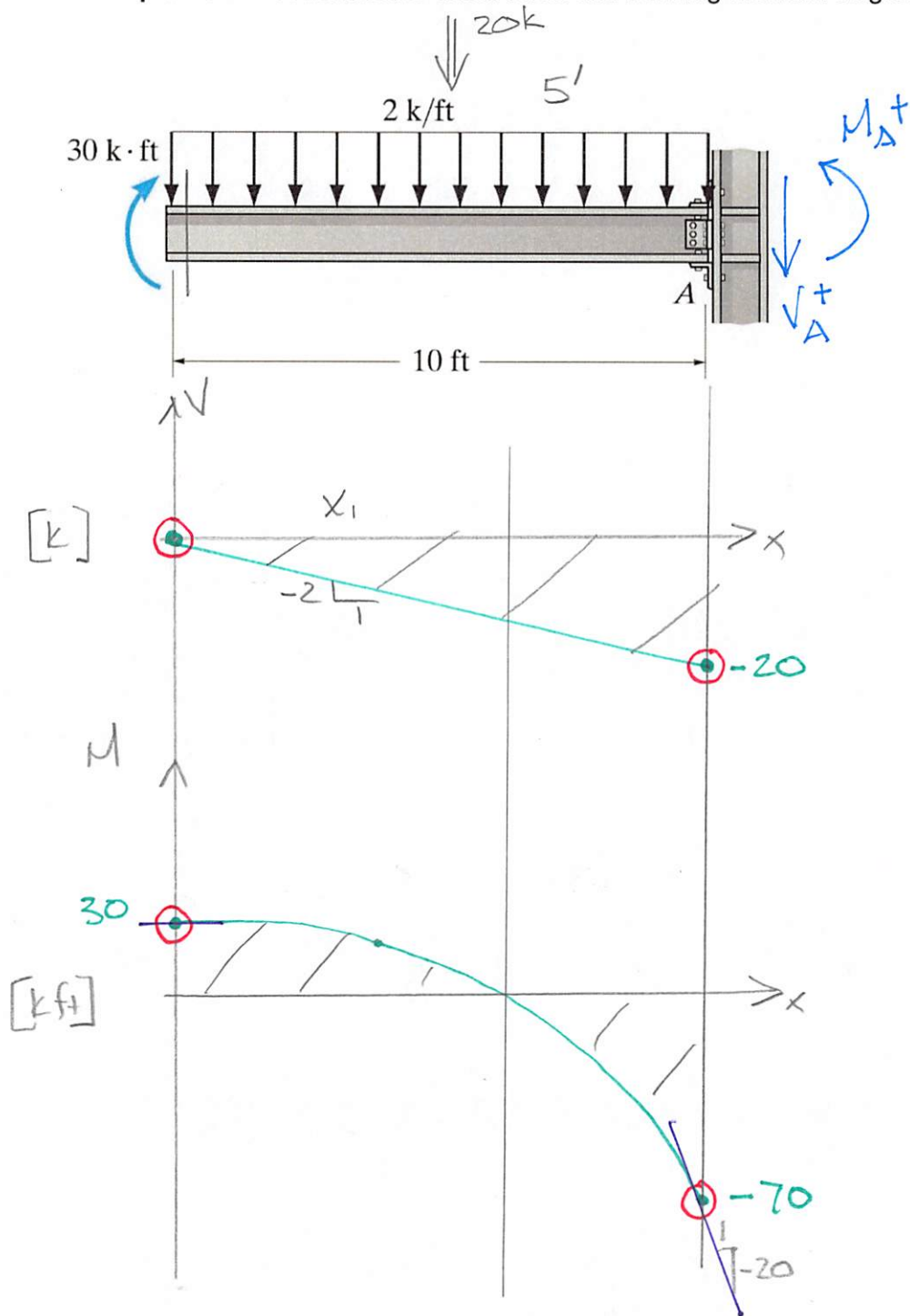


Example 4c-4 – Construct the shear force and bending moment diagrams.



$$\sum M_A = 0 = M_A + 20^k(5') - 30 \text{ k}\cdot\text{ft}$$

$$\underline{M_A = -70 \text{ k}\cdot\text{ft}}$$

$$\sum F_y = 0 = -V_A - 20^k$$

$$\underline{V_A = -20^k}$$

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

$V = 0$
 $\Delta x \rightarrow 0$

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

$$\underline{\underline{M_{MAX} = -70 \text{ k}\cdot\text{ft} @ A}}$$