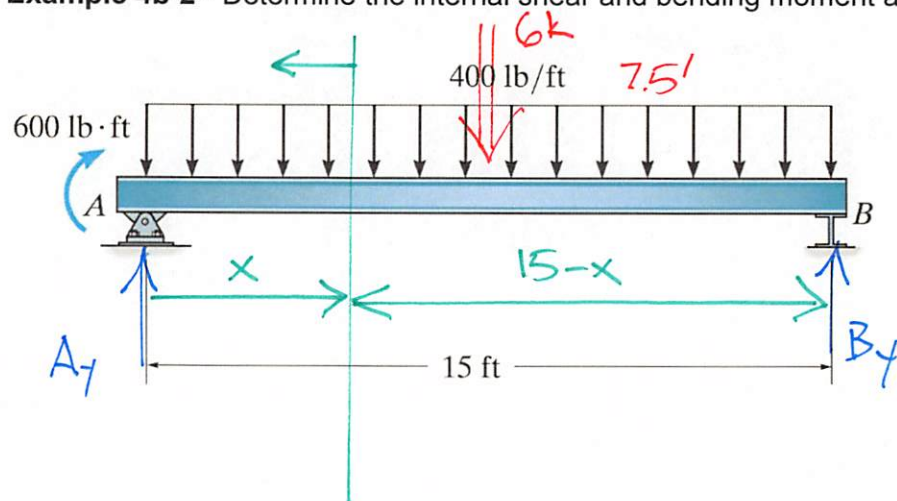


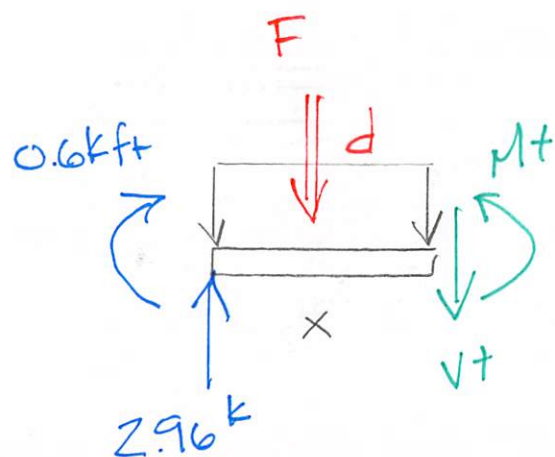
Example 4b-2 - Determine the internal shear and bending moment as a function of x .



$$\sum M_B = 0 = 6^k(7.5') - 0.6 \text{ kft} - A_y(15')$$

$$\underline{A_y = 2.96^k}$$

$$\underline{0 \leq x \leq 15}$$



$$F = 0.4x$$

$$d = \frac{1}{2}(x)$$

$$\sum M_{\text{cut}} = 0 = M + (0.4x)(x/2) - 0.6 \text{ kft} - 2.96x$$

$$\underline{\underline{M = [-0.2x^2 + 2.96x + 0.6] \text{ kft}}}$$

$$M(x=0) = 0.6 \text{ kft} \quad M(x=15') = 0$$

$$\sum F_y = 0 = -V - 0.4x + 2.96$$

$$\underline{\underline{V = [0.4x + 2.96] \text{ k}}}$$

$$\frac{dM}{dx} = V$$

$$V(x=0) = 2.96 \text{ k}$$

