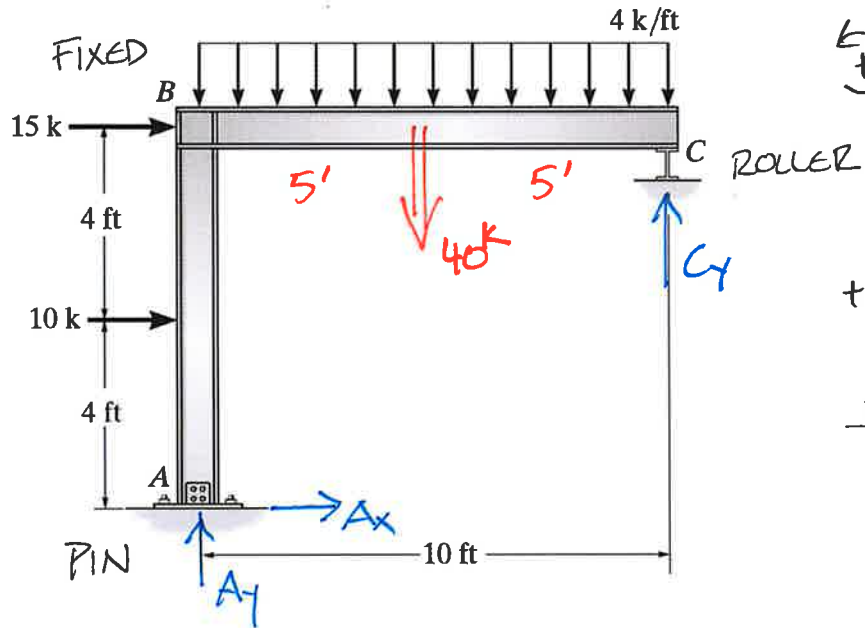


Example 4d-2: Draw the shear and moment diagrams for the following frame:

1/2



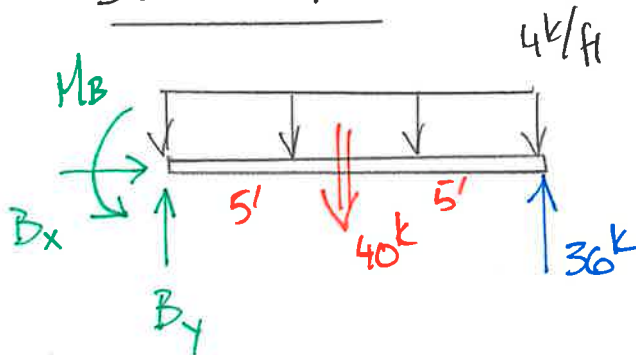
$$\sum M_A = 0 = -10^k(4') - 15^k(8') - 40^k(5') + C_y(10')$$

$$C_y = 36^k$$

$$\sum F_y = 0 = A_y + C_y - 40^k \quad A_y = 4^k$$

$$\sum F_x = 0 = A_x + 10^k + 15^k \quad A_x = -25^k$$

SECTION BC



$$\sum M_B = 0$$

$$= -40^k(5') + M_B + 36^k(10')$$

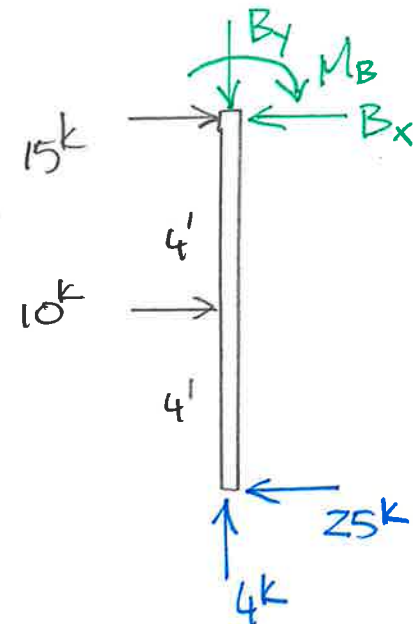
$$M_B = -160^k\text{ft}$$

$$\sum F_y = 0 = B_y - 40^k + 36^k$$

$$B_y = 4^k$$

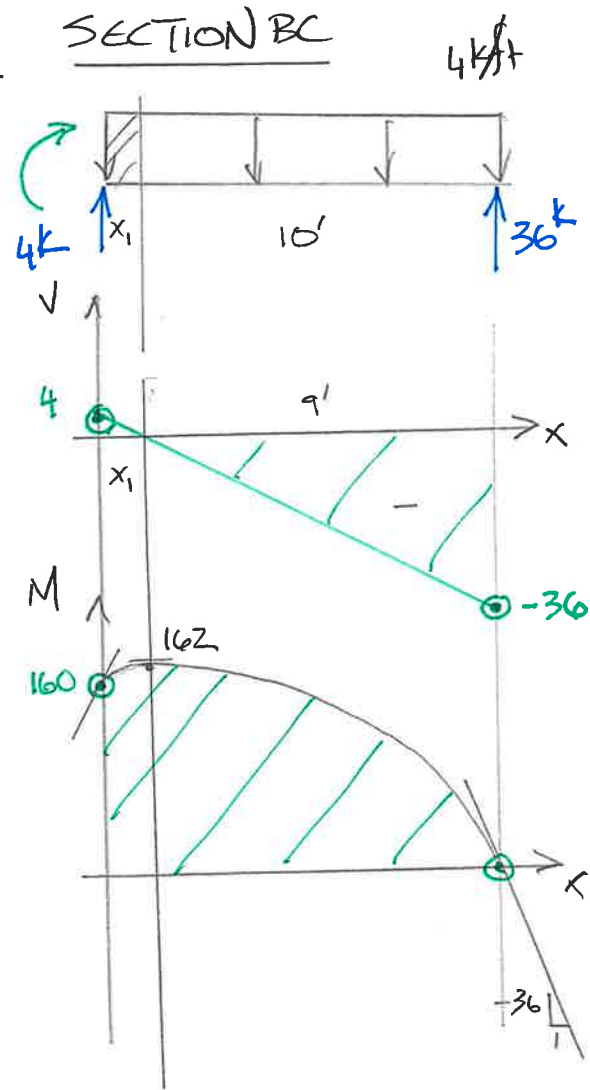
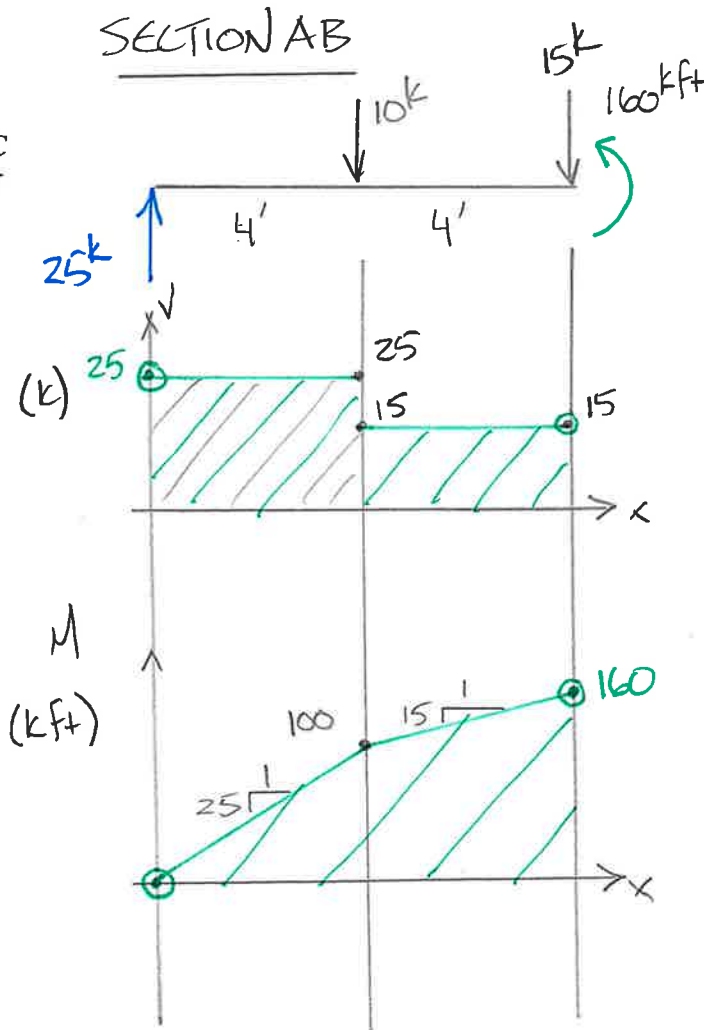
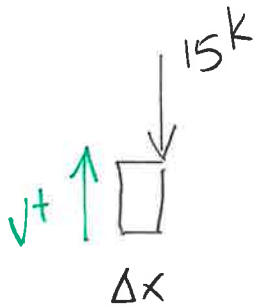
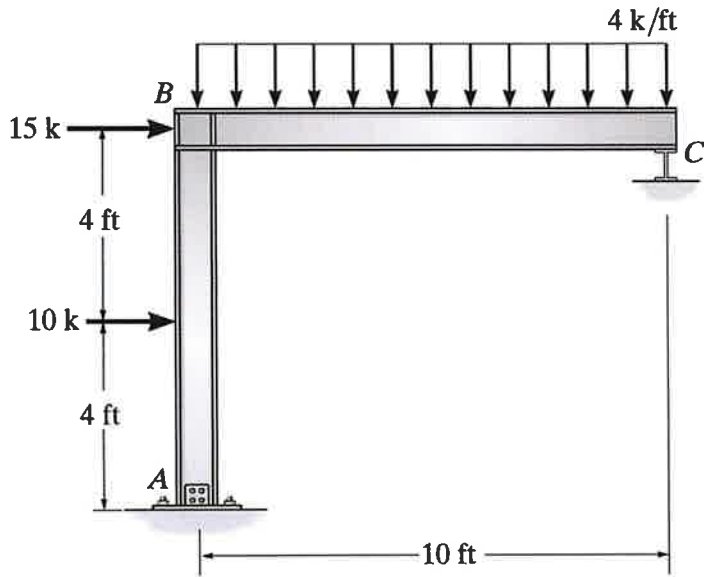
$$\sum F_x = 0 = B_x$$

SECTION AB



Example 4d-2: Draw the shear and moment diagrams for the following frame:

2/2



$$\Delta V = -4k \quad \int w dx = -4x k$$

$$x = 1 ft$$