

$$\Sigma M_A = 6(20) + (0.4)(10)(20)$$

$$- E_y(40) = 0$$

$$E_y = 11 \text{ K} \uparrow$$

$$\Sigma F_y = -0.4(40) + 11 + A_y = 0$$

$$A_y = 5 \text{ K} \uparrow$$

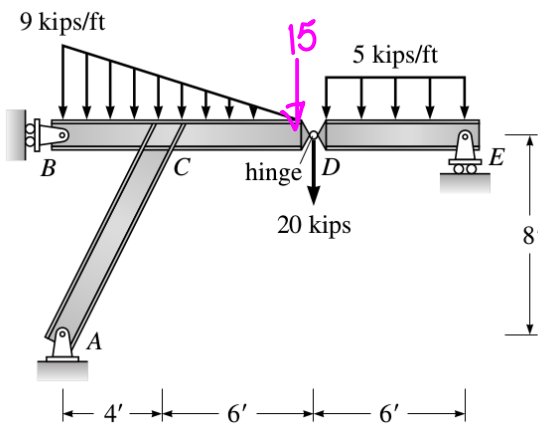
$$\Sigma M_C = 0.4(20)(10)$$

$$+ 6(10) - 5(20) - A_x(30) = 0$$

$$A_x = 1.33 \text{ K} \leftarrow$$

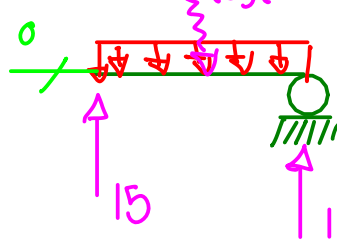
$$\Sigma F_x = 6 - 1.33 - E_x = 0$$

$$E_x = 4.67 \text{ K} \leftarrow$$



CL Derecha

$$\int (5)(6) = 30$$



$$\Sigma M_D = 30(3) - E_y(6) = 0$$

$$E_y = 15 \text{ K} \uparrow$$

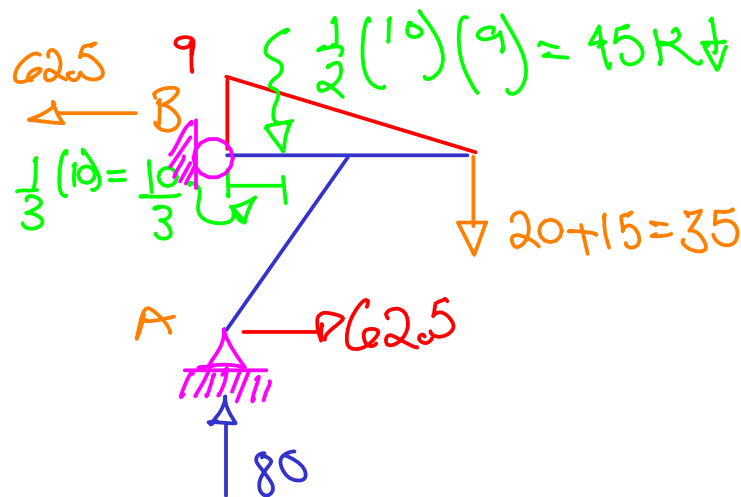
CL Izquierdo

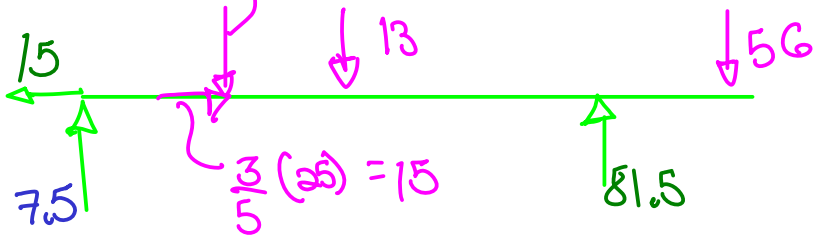
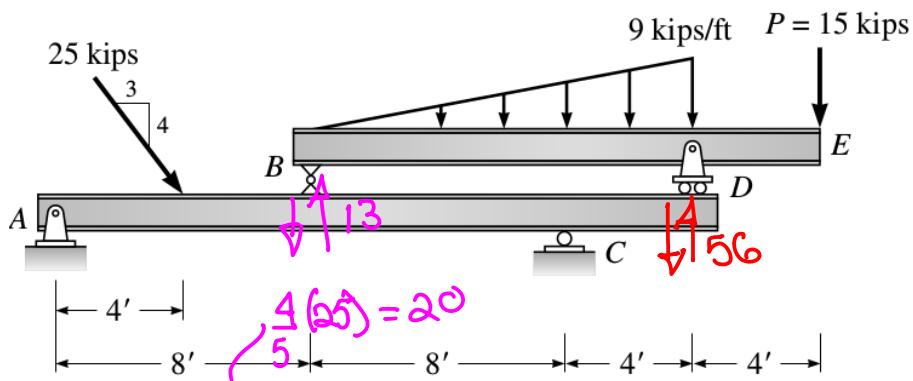
$$\Sigma M_A = B_x(8) + 45(10/3) + 35(10) = 0$$

$$B_x = 62.5 \text{ K} \leftarrow$$

$$\Sigma F_x = -62.5 + A_x = 0 \quad A_x = 62.5 \text{ K} \rightarrow$$

$$\Sigma F_y = -45 - 35 + A_y = 0 \quad A_y = 80 \text{ K} \uparrow$$





Viga arriba

$$\sum M_B = \frac{1}{2}(12)(9)\left(\frac{2}{3} \cdot 12\right)$$

$$-D_y(12) + 15(16) = 0$$

$$D_y = \underline{56 \text{ k} \uparrow}$$

$$\sum F_y = -\frac{1}{2}(12)(9) + 56 - 15 + B_y = 0$$

$$B_y = \underline{13 \text{ k} \uparrow}$$

$$\sum F_x = 15 - A_x = 0 \quad A_x = 15 \text{ k} \leftarrow$$

$$\sum M_A = 20(4) + 13(8) + 56(20) - C_y(16) = 0 \quad C_y = \underline{81.5 \text{ k} \uparrow}$$

$$\sum F_y = A_y - 20 - 13 - 56 + 81.5 = 0 \quad A_y = \underline{7.5 \text{ k} \uparrow}$$