

Para la estructura adjunta deberá:

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$$1) \sum F_H = H_2 + 3 \times 5 \text{ kN} - 15 \text{ kN} = 0$$

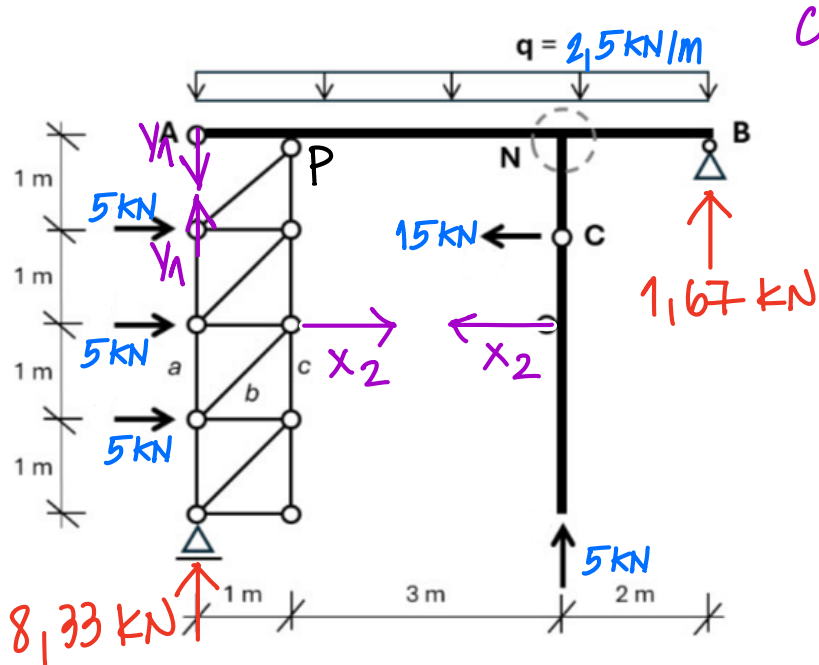
$$\boxed{H_2 = 0}$$

$$2) \sum M^1 = 6m V_2 + 4m \times 5kN + 3m \times 15kN - (2,5kN/m \cdot 6m) \times 3m - 1m \times 5kN - 2m \times 5kN - 3m \times 5kN = 0$$

$$V_2 = 1,67 \text{ kN}$$

$$3) \Sigma F_y = V_1 + V_2 - (2,5 \text{ kN/m} \cdot 6 \text{ m}) + 5 \text{ kN}$$

$$| V_1 = 8,33 \text{ kN} |$$



CORTO PARA AISLAR LAS BARRAS DE ALMA LLENA

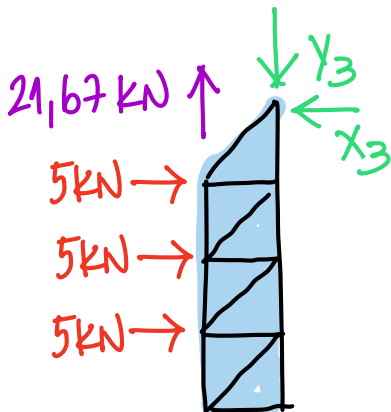
* TANTO b_1 COMO b_2 SÓLO TIENEN ESFUERZO NORMAL POR SER BIELAS

$$1) \sum M^C_{[s1]} = -1m \times X_2 = 0 \rightarrow \boxed{X_2 = 0}$$

$$2) \sum M^P_{[RETIC]} = -1m \times Y_1 - 1m \times 8.33 \text{ kN} + 1m \times 5 \text{ kN} + 2m \times 5 \text{ kN} + 3m \times 5 \text{ kN} = 0$$

$$\rightarrow \boxed{Y_1 = 21.67 \text{ kN}}$$

AIISO EL RETICULADO P/ CONOCER EL SALTO EN N Y Q EN ABC

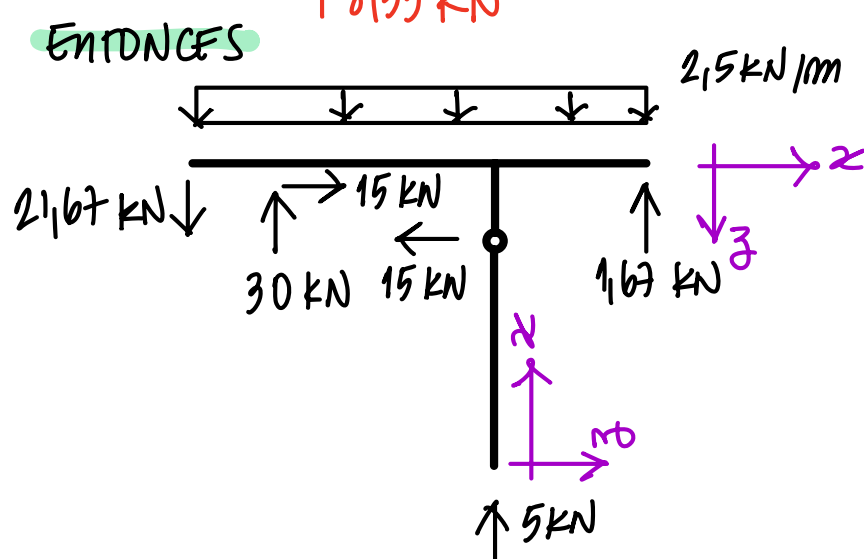


$$\sum F_H = 15 \text{ kN} - X_3 = 0 \rightarrow \boxed{X_3 = 15 \text{ kN}}$$

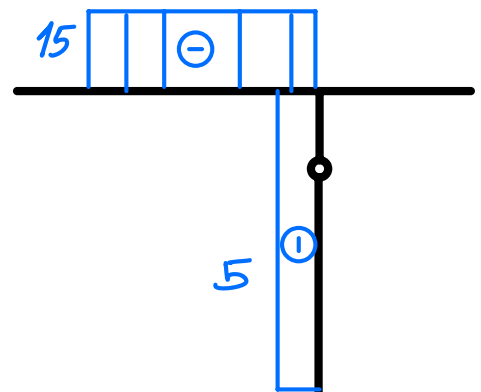
$$\sum F_V = 8.33 \text{ kN} + 21.67 \text{ kN} + Y_3 = 0$$

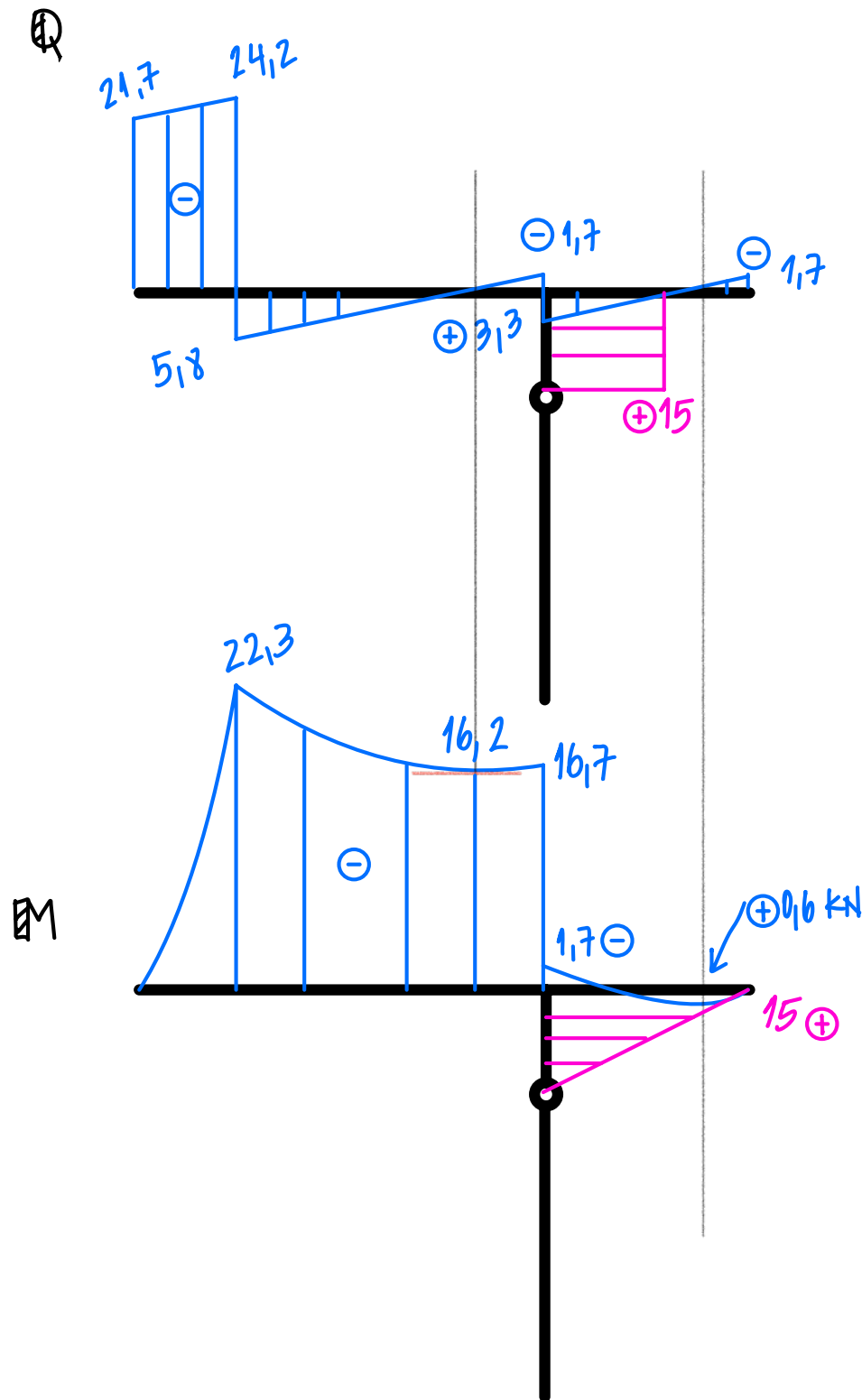
$$\boxed{Y_3 = 30 \text{ kN}}$$

ENTONCES

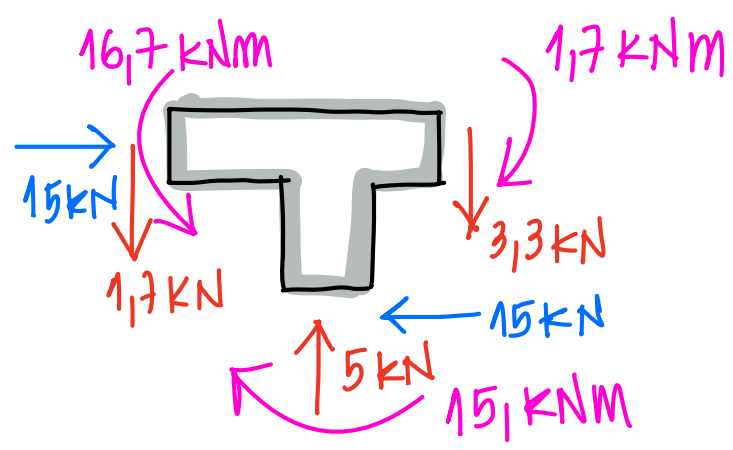


EN

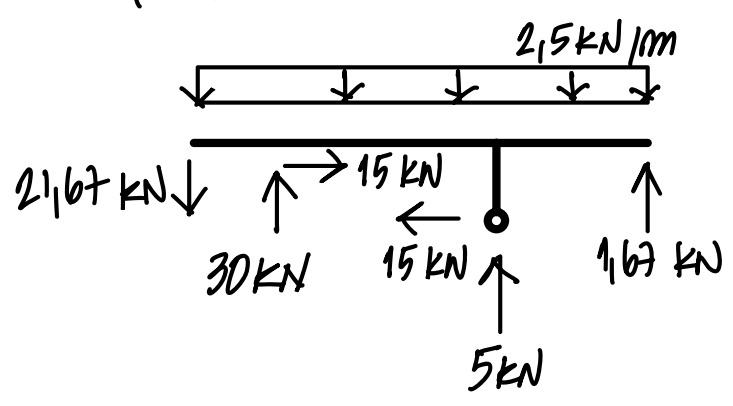




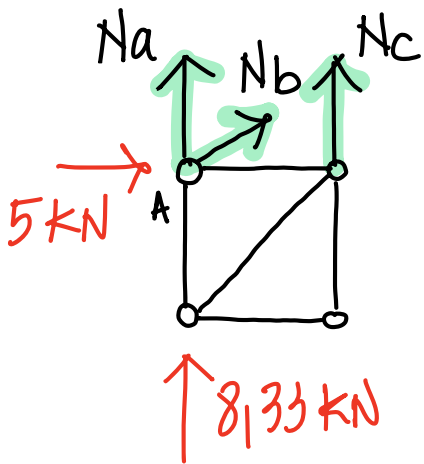
EQUILIBRIO NUDO



EQUILIBRIO BARRA ABC



PARA CALCULAR LOS ESF. EN EL RETICULADO, COCERO POR LAS BARRAS a, b, c INDICADAS.



$$\Sigma F_H = N_b \cdot \cos 45^\circ + 5 \text{ kN} = 0$$

$$\boxed{N_b = -7,07 \text{ kN}}$$

$$\Sigma M^A = 1 \text{ m} \cdot N_c = 0 \rightarrow \boxed{N_c = 0}$$

$$\Sigma F_V = N_a + N_b \cdot \sin 45^\circ + 8,33 \text{ kN} = 0$$

$$\boxed{N_a = -3,33 \text{ kN}}$$