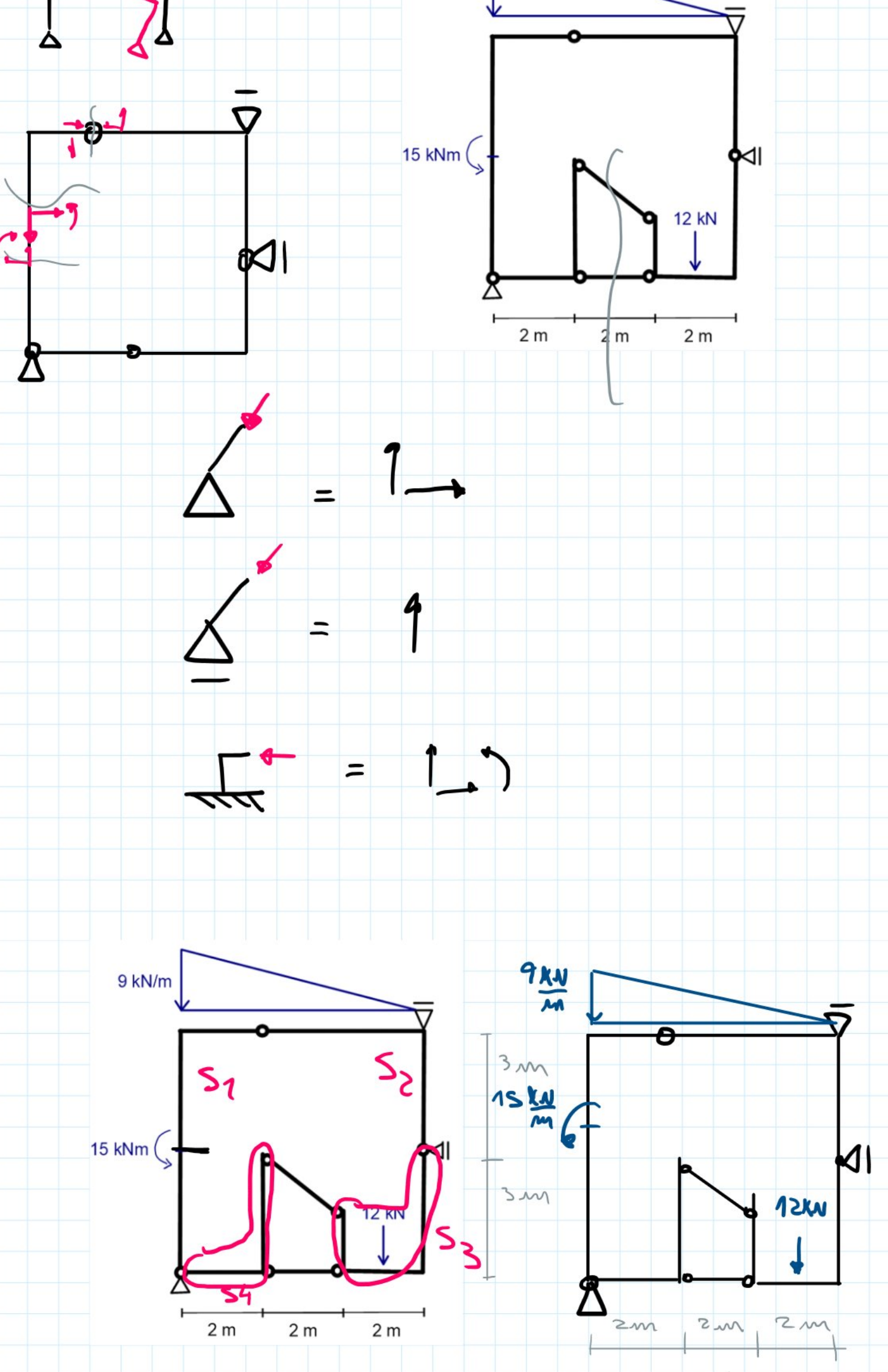




AC

$$GL = CV$$

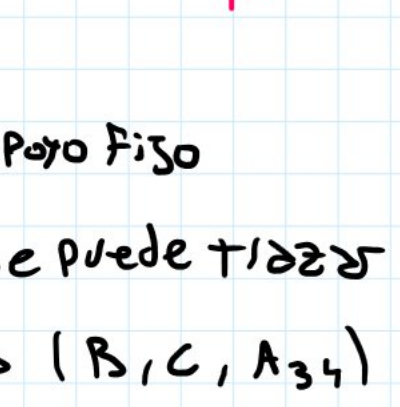
$$n = \Delta + \Delta + \Delta$$

$$4 = 2 + 1 + 1$$

$$4 = 4$$

$$\begin{matrix} 3 & 1.5 \\ & 4 \end{matrix}$$

- BF por intersección de normales de Apoyos Fijos



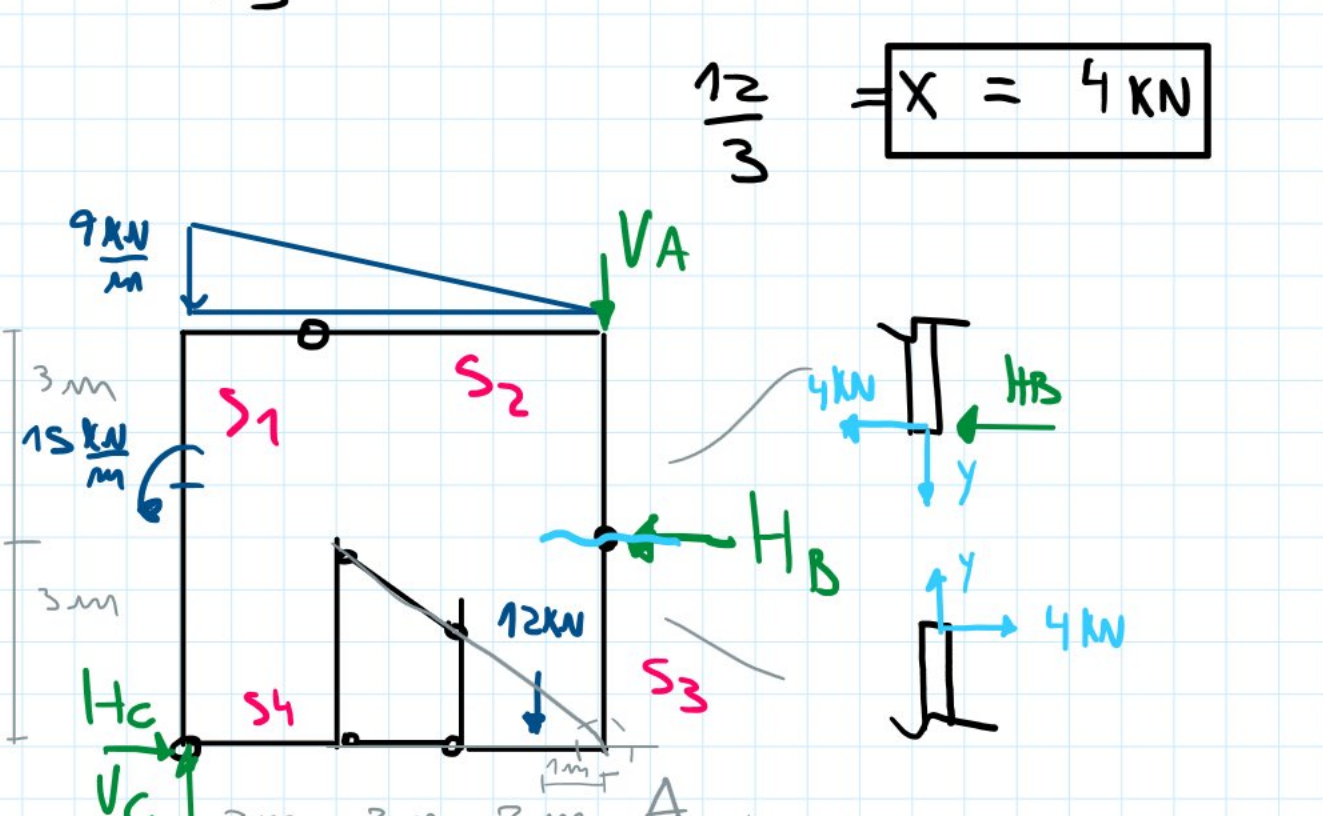
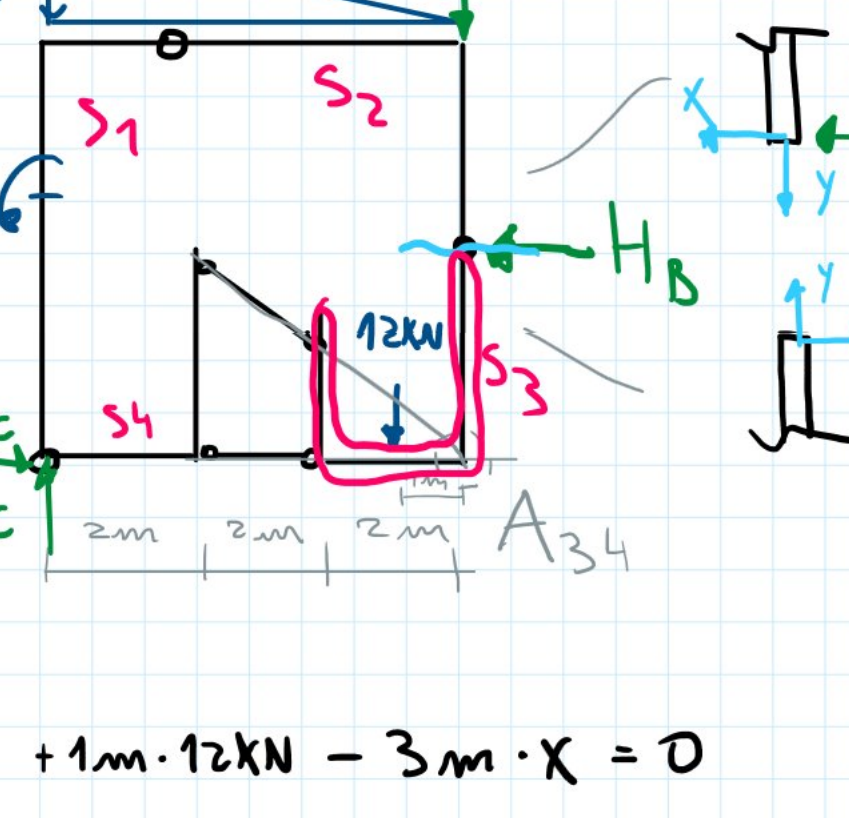
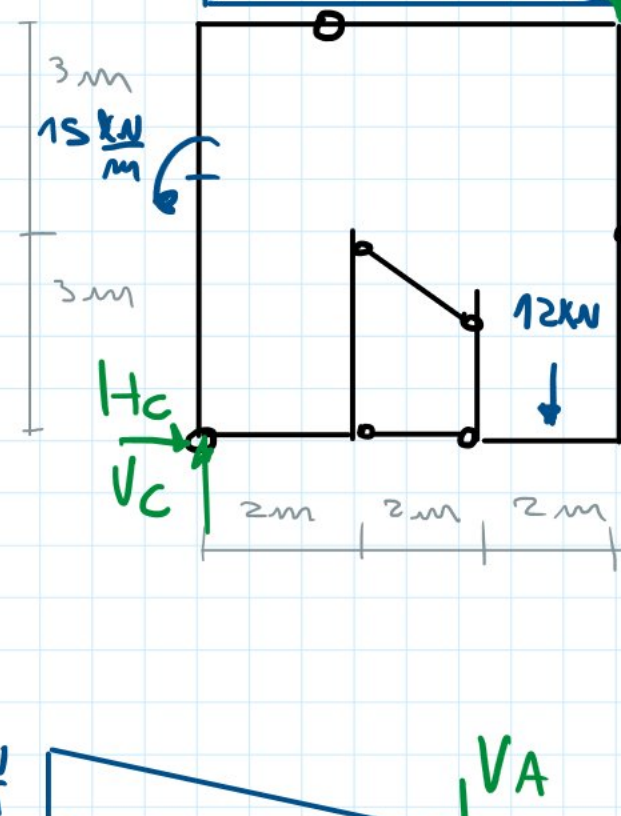
- CF por Apoyo Fijo

• Como no se puede trazar una recta paralela por los Tres puntos (B, C, A34), entonces S3 y S4 Fijas por A3A.

- // idem para S2 y S2 (B, C, A12)

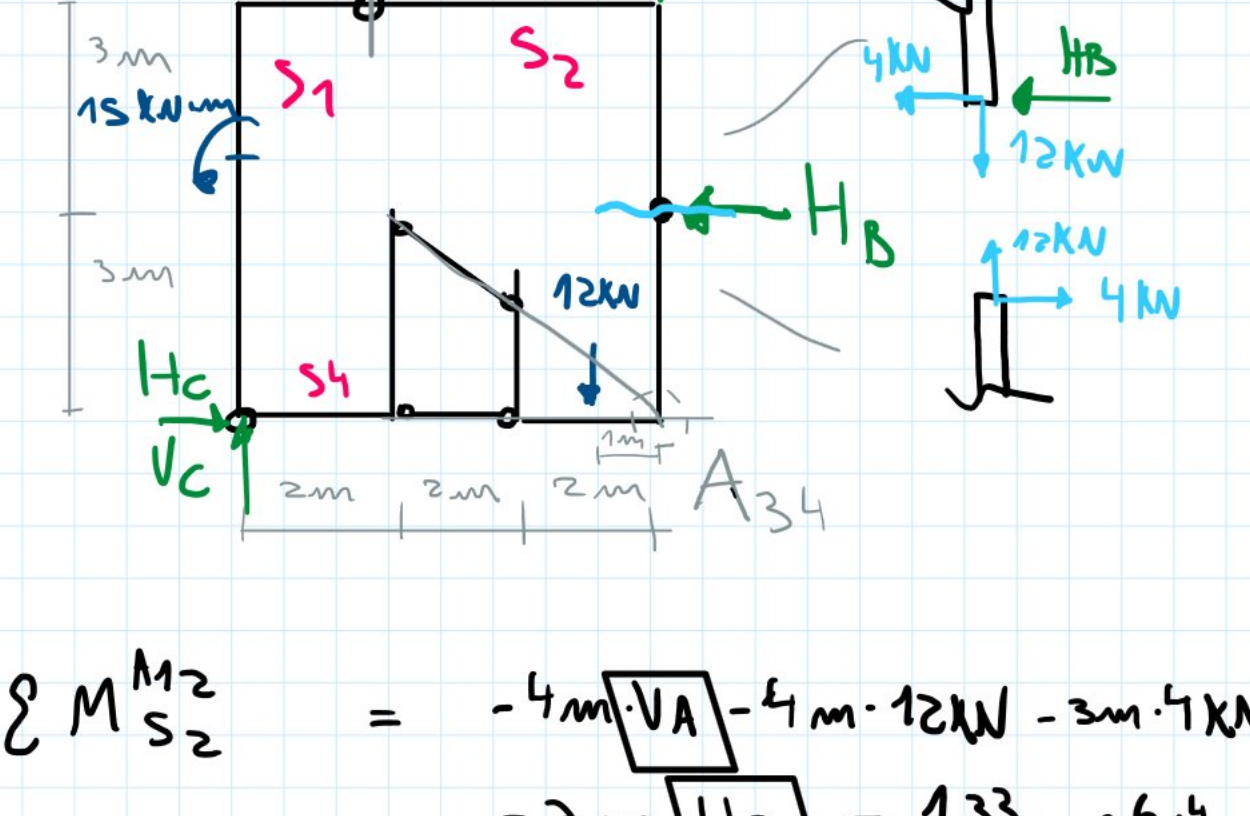
=> Isostática /

Reacciones de Vínculo



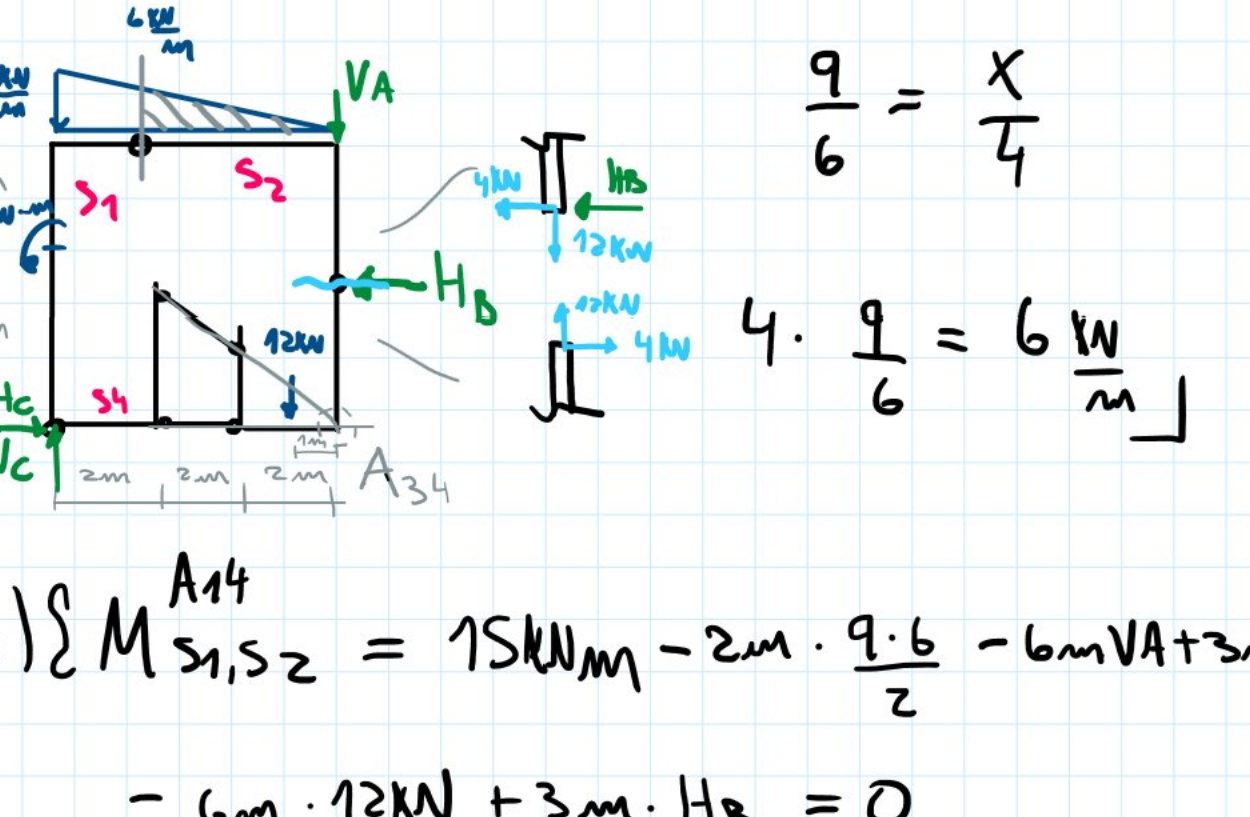
$$\sum M_{S3}^{A34} = +1m \cdot 12kN - 3m \cdot X = 0$$

$$\frac{12}{3} = X = 4kN$$

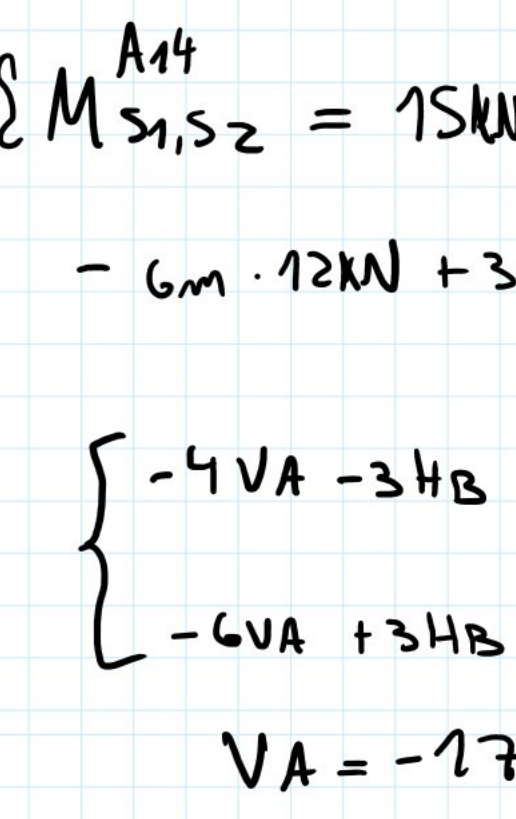


$$\sum M_{S3S4}^{A11} = -5m \cdot 12kN - 3m \cdot 4kN + 6m \cdot Y = 0$$

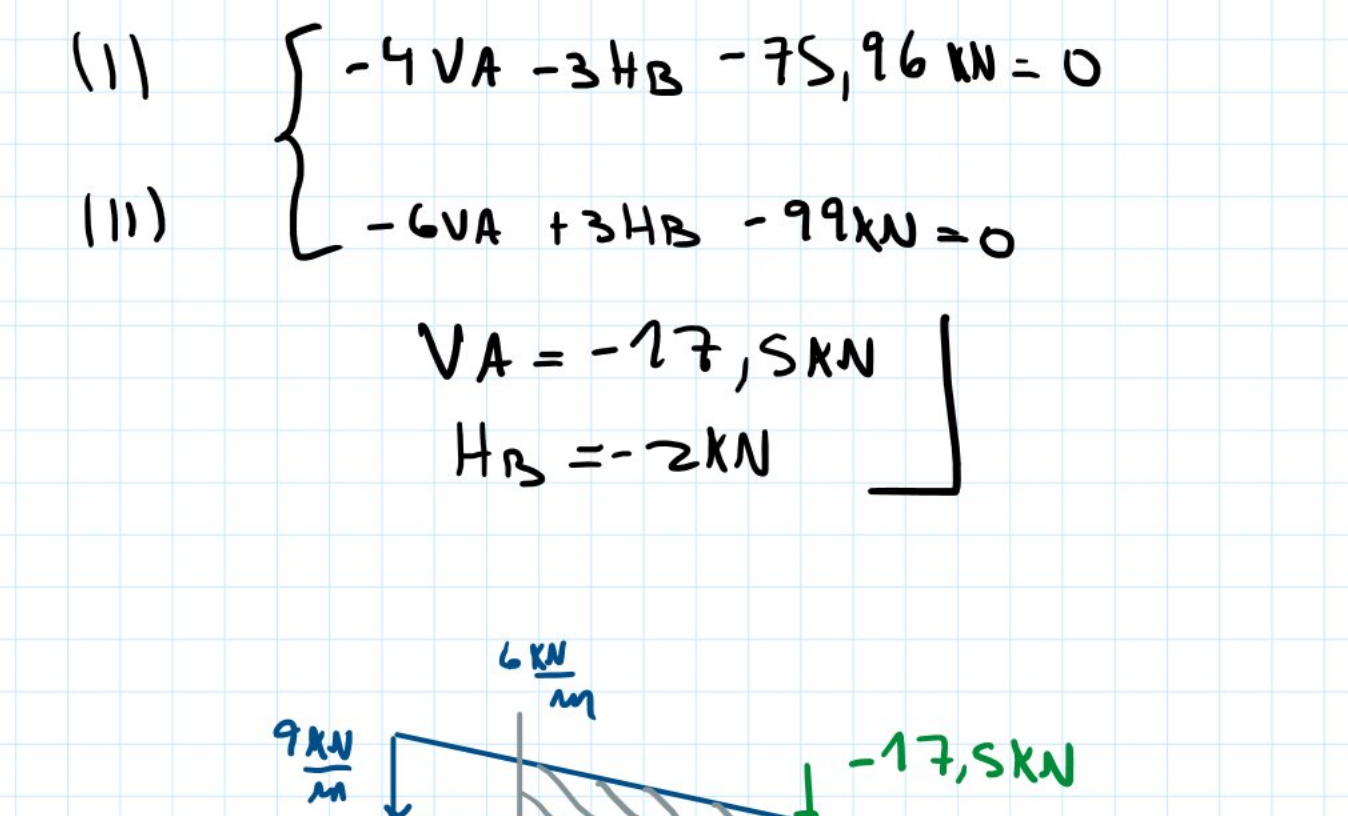
$$Y = 12kN$$



$$(I) \sum M_{S2}^{M2} = -4m \cdot VA - 4m \cdot 12kN - 3m \cdot 4kN - 3m \cdot HB - 1,33m \cdot \frac{6 \cdot 4}{2} = 0$$



$$Tg(\alpha) = \frac{9}{6} = \frac{X}{4}$$



$$(II) \sum M_{S1,S2}^{A14} = 15kNm - 2m \cdot \frac{9 \cdot 6}{2} - 6m \cdot VA + 3m \cdot 4m - 6m \cdot 12kN + 3m \cdot HB = 0$$

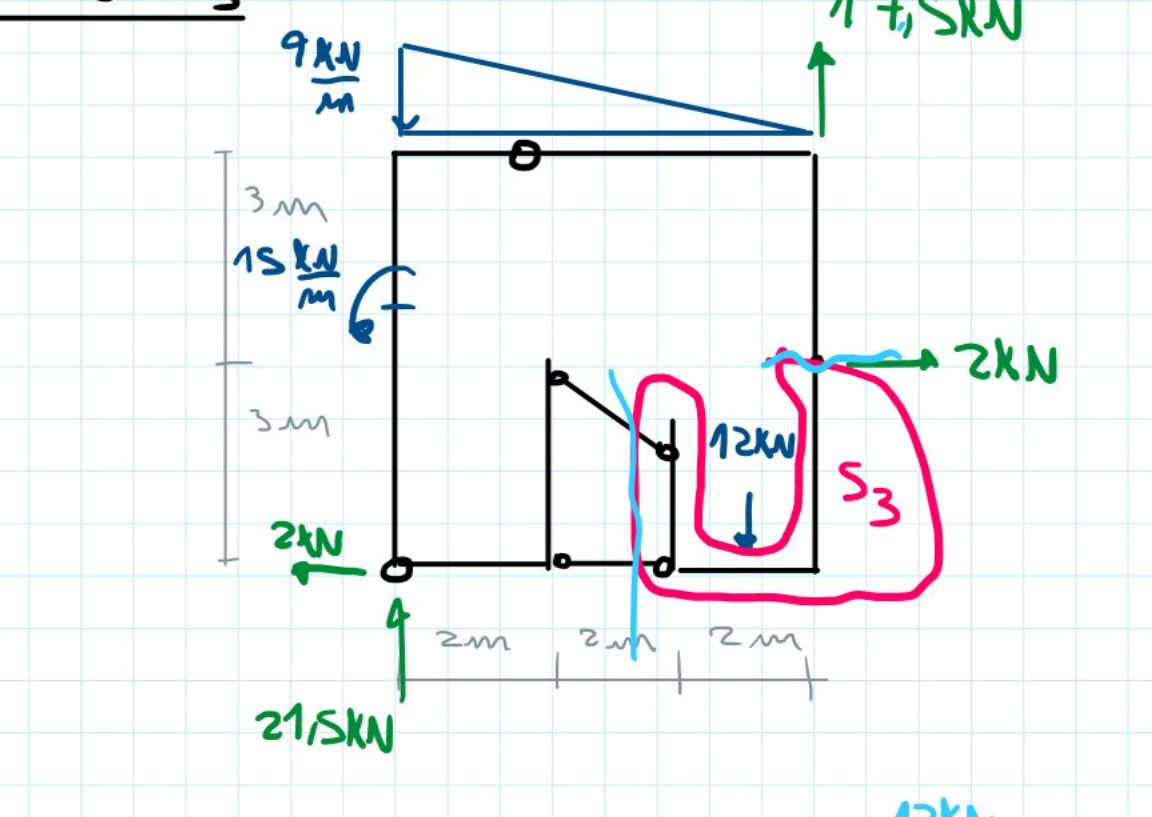
Resolvo 2x2

$$(I) \sum M_{S2}^{M2} = -4m \cdot VA - 4m \cdot 12kN - 3m \cdot 4kN - 3m \cdot HB - 1,33m \cdot \frac{6 \cdot 4}{2} = 0$$

$$(II) \sum M_{S1,S2}^{A14} = 15kNm - 2m \cdot \frac{9 \cdot 6}{2} - 6m \cdot VA + 3m \cdot 4m - 6m \cdot 12kN + 3m \cdot HB = 0$$

$$\begin{cases} -4VA - 3HB - 75,96kN = 0 \\ -6VA + 3HB - 99kN = 0 \end{cases}$$

$$\begin{matrix} VA = -17,5kN \\ HB = -2kN \end{matrix}$$



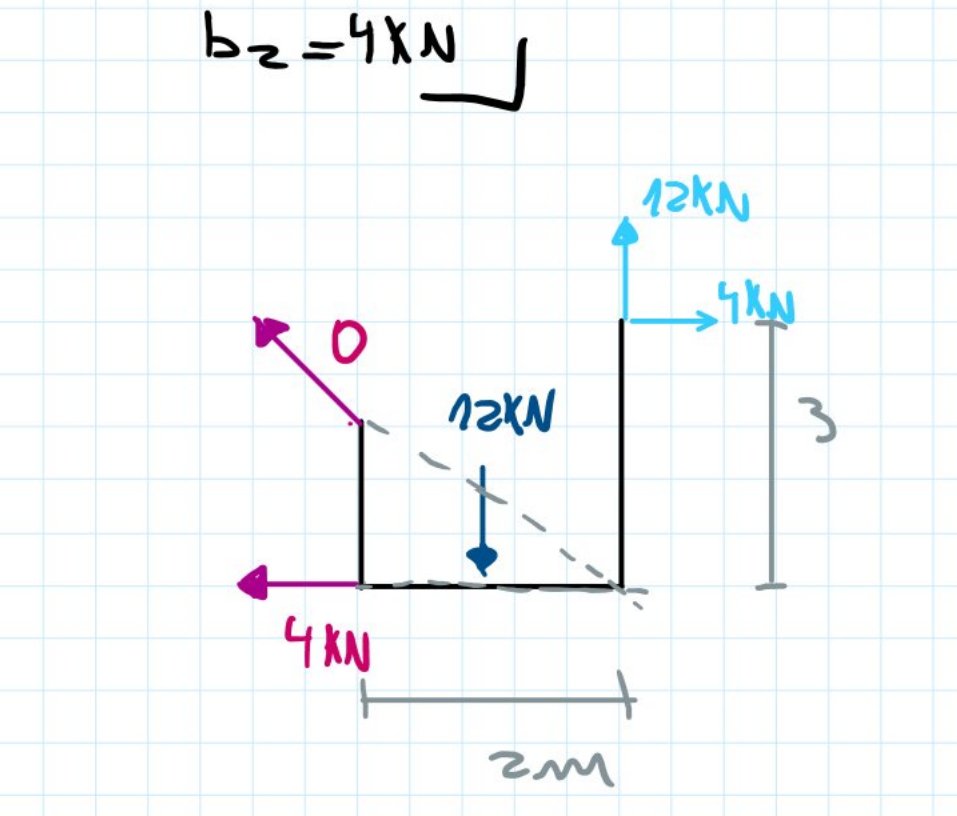
$$\sum F_V^{Glob} = +VC - 12kN + 17,5kN - \frac{9 \cdot 6}{2} = 0$$

$$VC = 21,5kN$$

$$\sum F_H^{Glob} = HC + 2kN = 0$$

$$HC = -2kN$$

Despiece S3



$$\sum F_y = 12kN - 12kN + b_{1y} = 0 \rightarrow b_{1y} = 0$$

$$\begin{matrix} b_{1y} = b_1 \cdot \sin \alpha \\ = 0 \end{matrix} \rightarrow \begin{matrix} b_{1x} = 0 \\ = 0 \end{matrix}$$

$$\sum F_x = -b_2 + 4kN = 0$$

$$b_2 = 4kN$$

