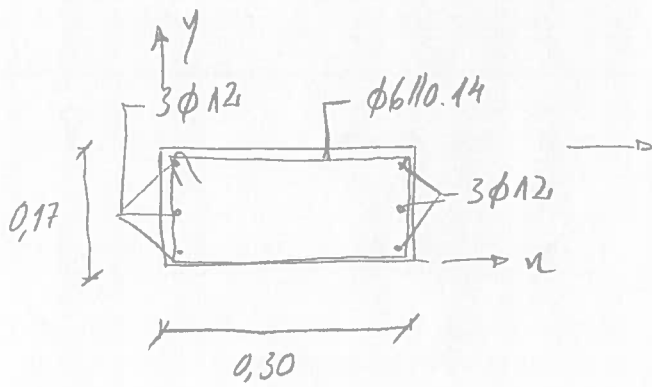


1º

Armadura Necessária



$$\begin{aligned} &\rightarrow 170 - \overset{\text{Rec}}{50} - \overset{\text{est}}{2 \times 6} - \overset{\text{Arm}}{2 \times 12} = 84 \text{ mm} \\ &\rightarrow \frac{84 \text{ mm}}{2} = 42 \text{ mm} \end{aligned}$$

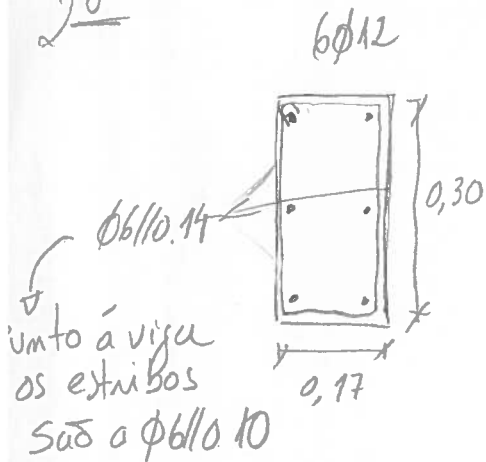
Afastamento Recomendado
mínimo $\approx 40 \text{ mm}$

$$\begin{aligned} &\rightarrow A_{sy} = 5,26 \text{ cm}^2 \\ &\quad A_{sx} = 0,20 \text{ cm}^2 \\ &\rightarrow A_{arm} 6\phi 12 = 6,79 \text{ cm}^2 \end{aligned}$$

Problema

Caso a carga, fosse Superior a armadura Segundo y, seria sempre muito maior que Segundo x, ao ponto de não caber nos 17 cm de face.

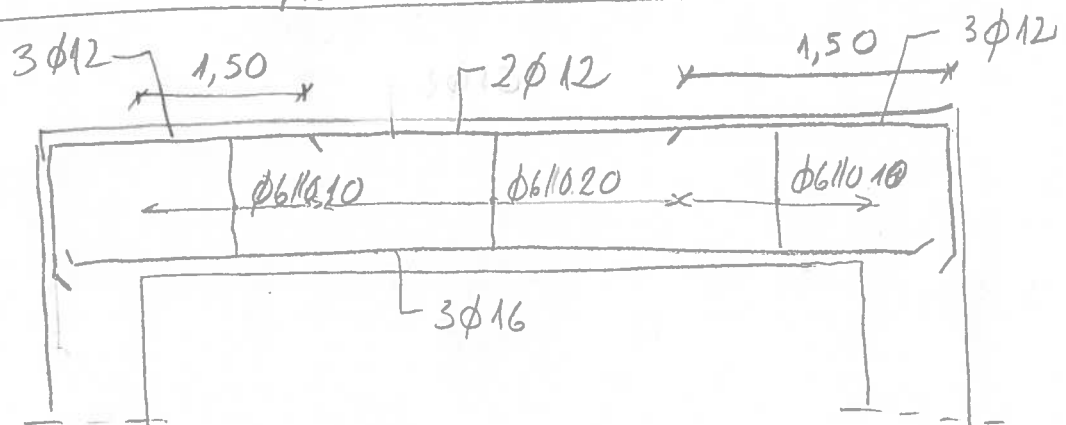
2º



problema do espaçamento e aumento da armadura Resolvido

$$\begin{aligned} A_{sy} &= 4,02 \text{ cm}^2 \\ A_{sx} &= 1,46 \text{ cm}^2 \\ A_{arm} 6\phi 12 &= 6,79 \text{ cm}^2 \end{aligned}$$

Viga



IVC ←