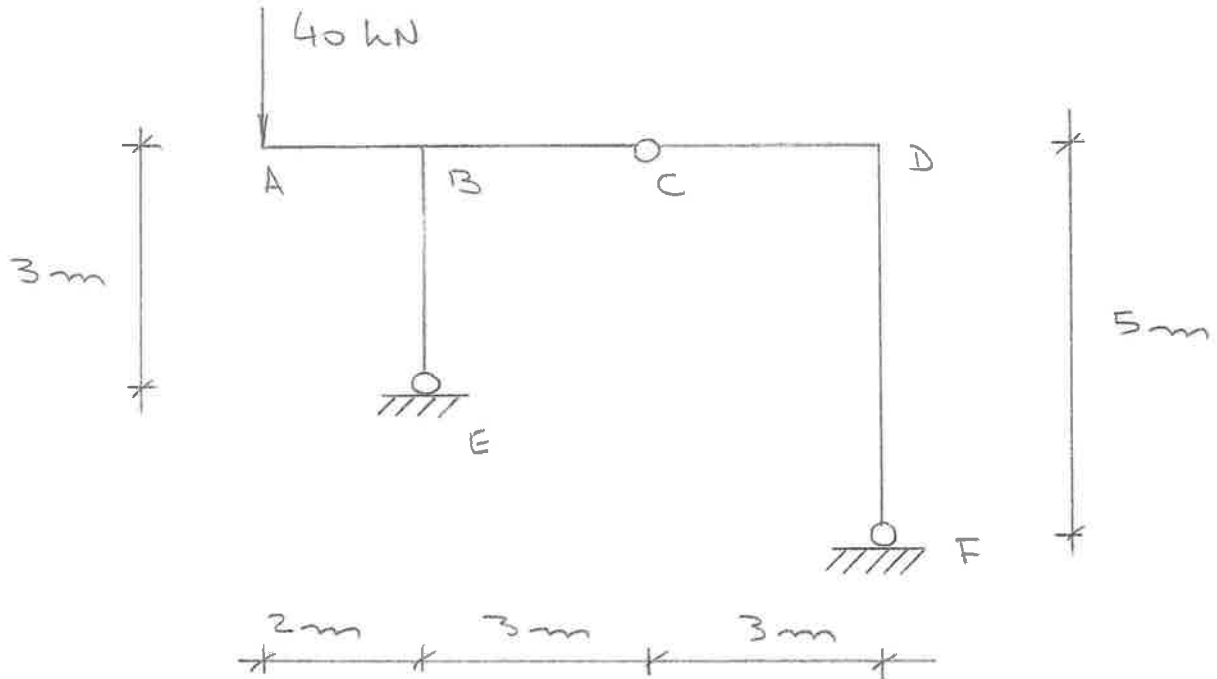


Nº USP: \_\_\_\_\_ Nome: \_\_\_\_\_

**3ª Questão (3,0 pontos)**

Para a estrutura da figura:

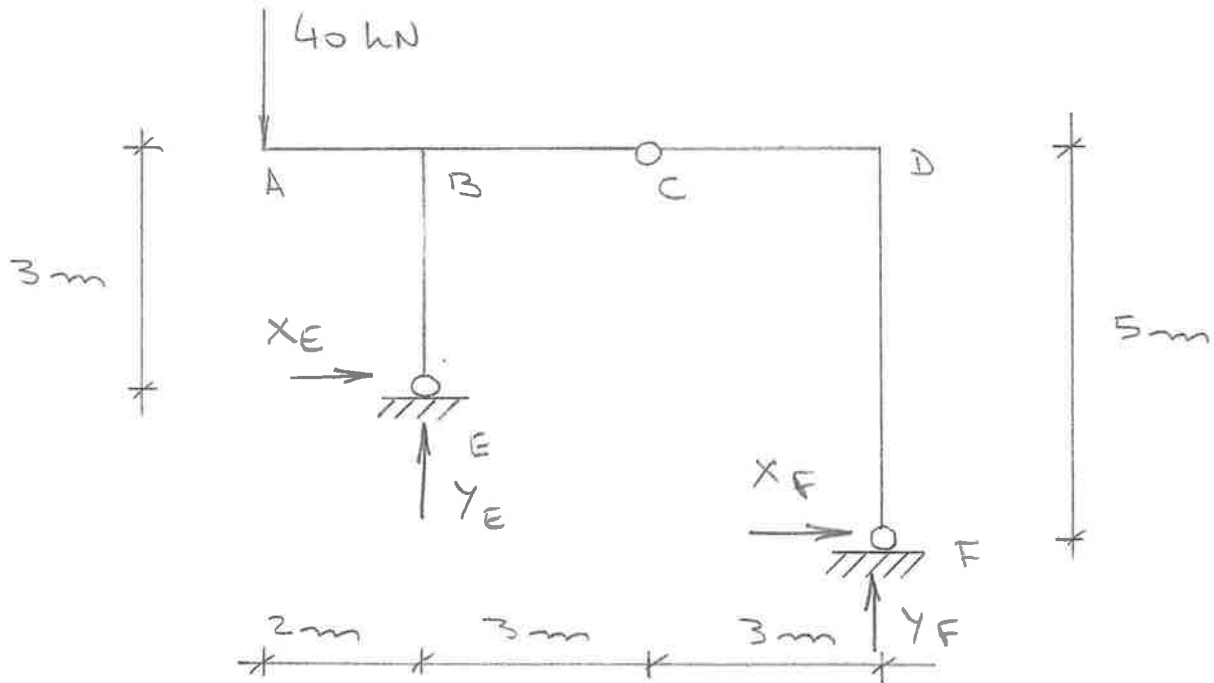
- Determinar as reações de apoio;
- Traçar os diagramas de esforços solicitantes.



Nº USP: \_\_\_\_\_ Nome: GABARITO**3ª Questão (3,0 pontos)**

Para a estrutura da figura:

- Determinar as reações de apoio;
- Traçar os diagramas de esforços solicitantes.



$$\sum X = 0 \quad X_E + X_F = 0$$

$$\sum Y = 0 \quad Y_E + Y_F = 40$$

$$\sum M_E = 0 \quad 40 \cdot 2 + X_F \cdot 2 + Y_F \cdot 6 = 0$$

$$\text{Momento flexor em C} = 0 \quad X_F \cdot 5 + Y_F \cdot 3 = 0$$

$$X_F = -\frac{3}{5} Y_F$$

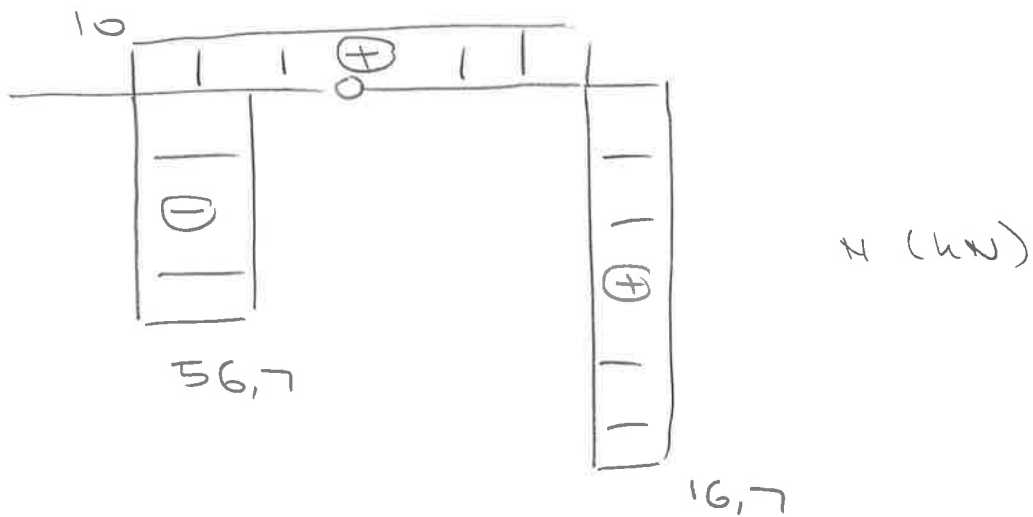
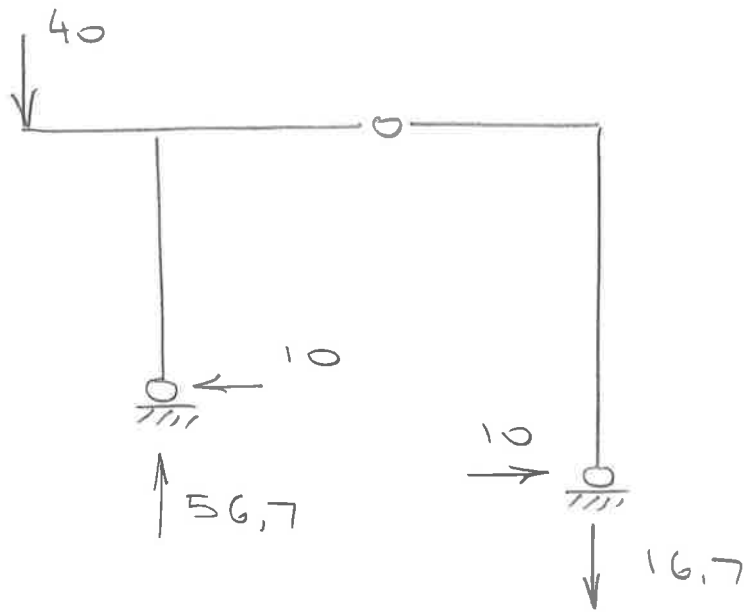
$$40 \cdot 2 - \frac{3}{5} Y_F \cdot 2 + 6 Y_F = 0$$

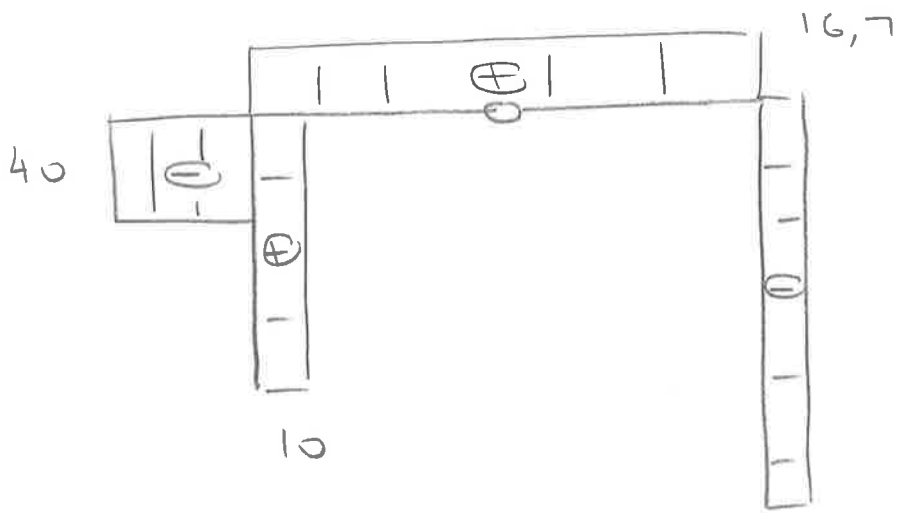
$$Y_F = -\frac{50}{3} = -16,7 \text{ kN}$$

$$X_F = -\frac{50}{3} \cdot \left(-\frac{50}{3}\right) = 10 \text{ kN}$$

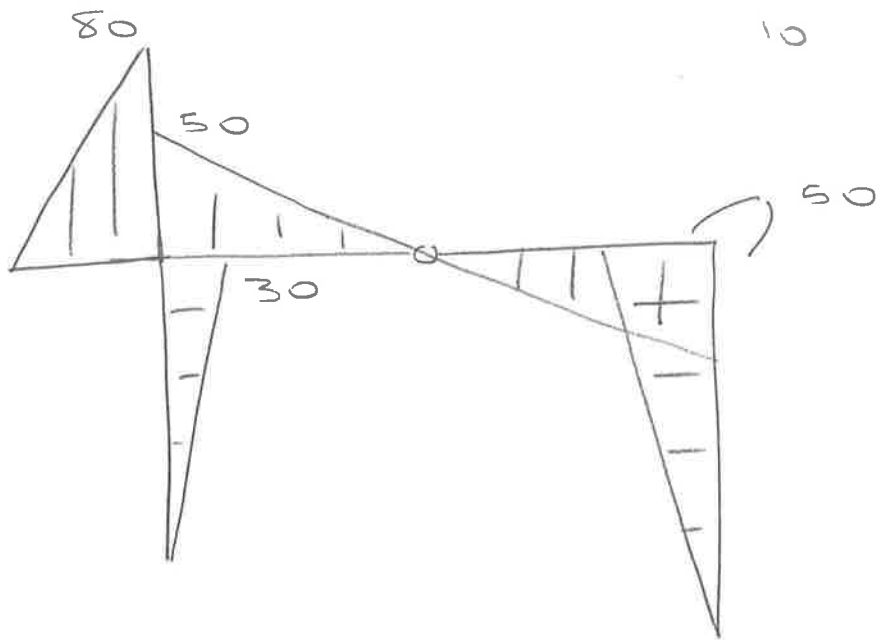
$$X_E = -10 \text{ kN}$$

$$Y_E = 40 - Y_F = 40 + \frac{50}{3} = \frac{170}{3} = 56,7 \text{ kN}$$





V (kN)



M (kNm)

no' B :

