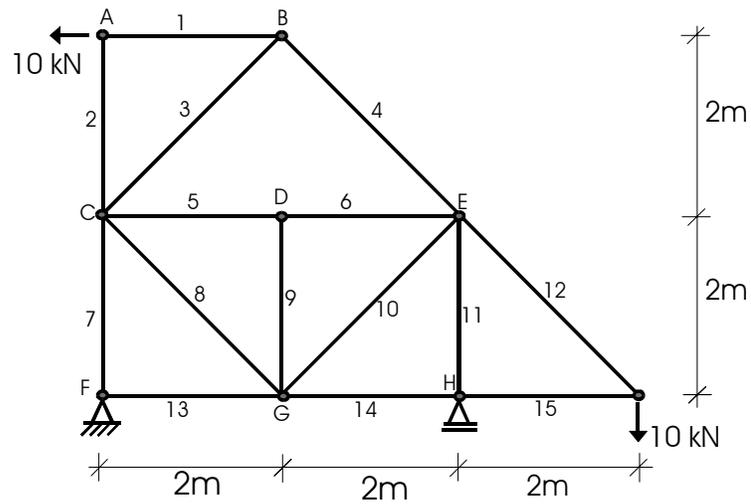


Nº USP: _____ Nome: _____

Questão 2 (3,0)

Para a treliça da figura, pedem-se:

- As reações de apoio;
- As forças normais N_2 , N_3 e N_4 , pelo método de Ritter;
- As forças normais N_5 , N_7 e N_8 , pelo método do equilíbrio dos nós.

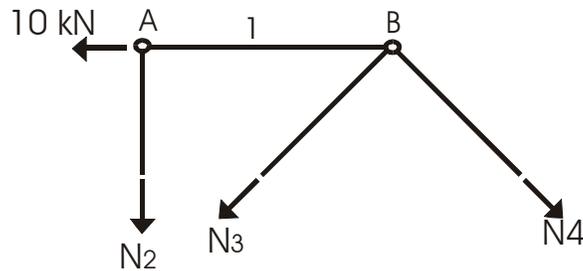


a) $\sum M_F = 0 \Rightarrow V_F = 5kN$

$\sum V = 0 \Rightarrow V_F = 5kN$

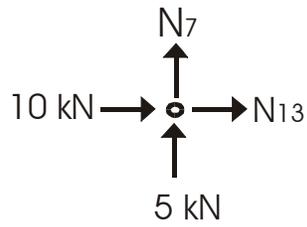
$\sum H = 0 \Rightarrow H_F = 10kN$

b)



$$\begin{aligned}
 \sum M_B = 0 & \Rightarrow \boxed{N_2 = 0} \\
 \sum M_C = 0 & \Rightarrow \boxed{N_4 = 5\sqrt{2}kN} \\
 \sum V = 0 & \Rightarrow \boxed{N_3 = -5\sqrt{2}kN}
 \end{aligned}
 \tag{1.0}$$

c) Nó F: $\boxed{N_7 = -5kN}$ (1.0)



Nó C:

$$\begin{aligned}
 \sum V = 0 & \Rightarrow \boxed{N_8 = 0} \\
 \sum H = 0 & \Rightarrow \boxed{N_5 = 5kN}
 \end{aligned}
 \tag{1.0}$$

