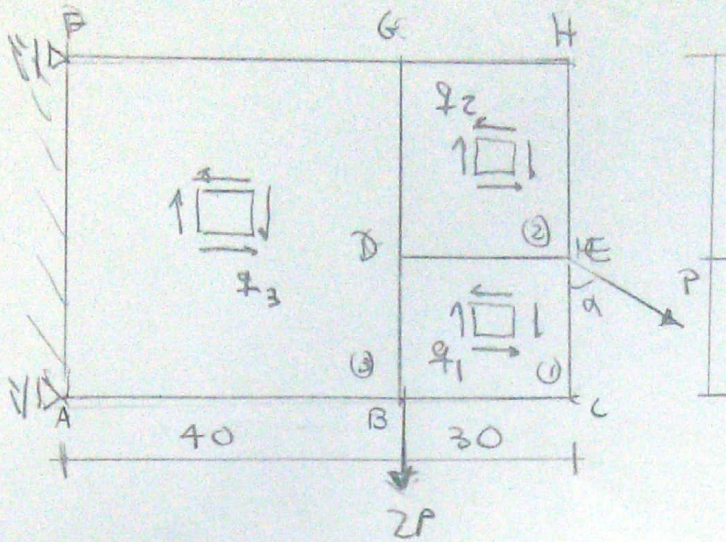


EXERCÍCIO 30/10



a) Determinar os fluxos de cisalhão nas células ① e ②

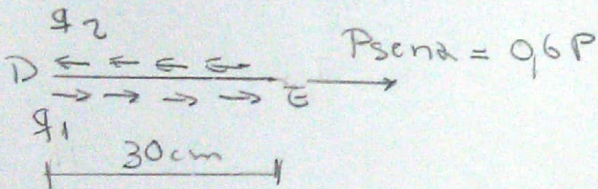
b) Representar o diagrama de força normal na barra H-E-C

$\sin \alpha = 0,6$

$\cos \alpha = 0,8$

Incógnitas: $q_1 = q_2$

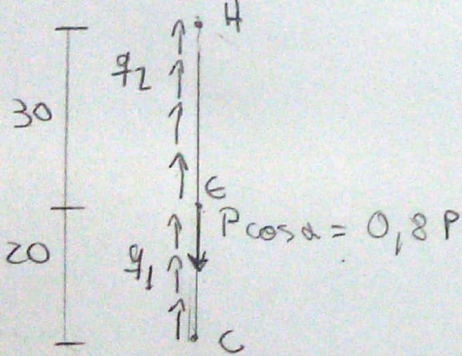
Barra D-E:



$q_1 L_{DE} + 0,6P - q_2 L_{DE} = 0$

$q_1 - q_2 = -\frac{0,6P}{30}$ (1)

Barra H-E-C:



$0,8P - q_1 L_{EC} - q_2 L_{HE} = 0$

$20q_1 + 30q_2 = 0,8P$ (2)

Dc (1): $30q_2 = 30q_1 + 0,6P$

Gm (2): $20q_1 + 30q_1 + 0,6P = 0,8P$

$50q_1 = 0,2P$

$q_1 = \frac{0,02P}{5}$

$q_2 = \frac{0,12P}{5}$

Normal em H-E-C

