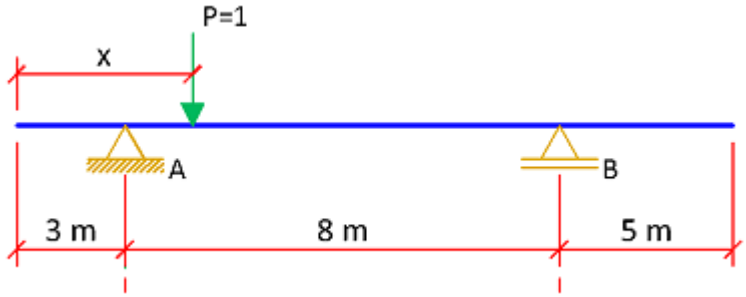
TE2-1.1



Dado que:

$$R_A=\frac{(L+a-x)}{L} \quad e \quad R_B=\frac{(x-a)}{L}$$

$$R_A(0) = \frac{(8+3-0)}{8} = \frac{11}{8} = 1{,}375$$

$$R_A(3) = \frac{(8+3-3)}{8} = \frac{8}{8} = 1$$

$$R_A(3+8) = \frac{(8+3-(3+8))}{8} = \frac{0}{8} = 0$$

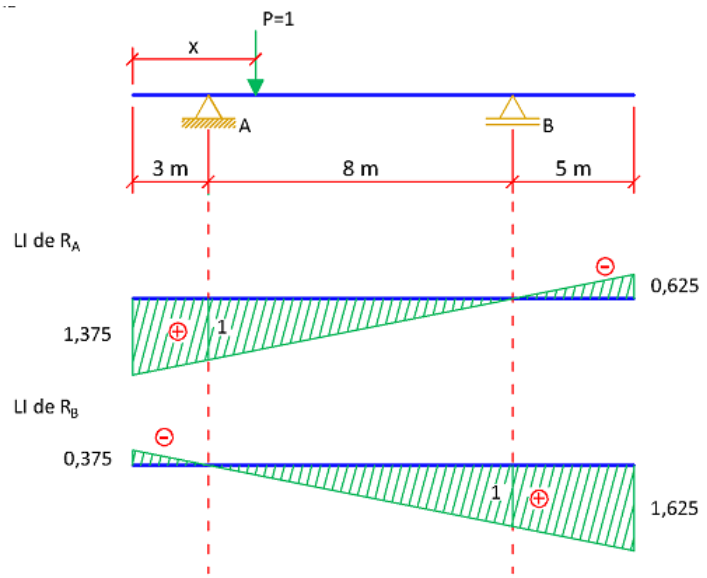
$$R_A(3+8+5) = \frac{(8+3-(3+8+5))}{8} = -\frac{5}{8} = -0{,}625$$

$$R_B(0) = \frac{(0-3)}{8} = -\frac{3}{8} = -0{,}375$$

$$R_B(3) = \frac{(3-3)}{8} = \frac{0}{8} = 0$$

$$R_B(3+8) = \frac{((3+8)-3)}{8} = \frac{8}{8} = 1$$

$$R_B(3+8+5) = \frac{((3+8+5)-3)}{8} = \frac{13}{8} = 1{,}625$$



a) RA máx = 1,375 . 120 = 165 kN (carga na borda esquerda)

b) RA mín = 0,625 . 120 = 755 kN (carga na borda direta)

c) RB máx = 1,625 . 120 = 195 kN (carga na borda direta)

d) RB mín = 0,375 . 120 = 45 kN (carga na borda direta)

e) coef. de influência de $R_A(7) = \frac{(L+a-x)}{L} = \frac{(8+3-7)}{8} = \frac{4}{8} = 0,5$

RA 7 = 0,500 . 120 = 60 kN

f) coef. de influência de $R_B(9) = \frac{(x-a)}{L} = \frac{(9-3)}{8} = \frac{6}{8} = 0,75$

RB 9 = 0,750 . 120 = 90 kN