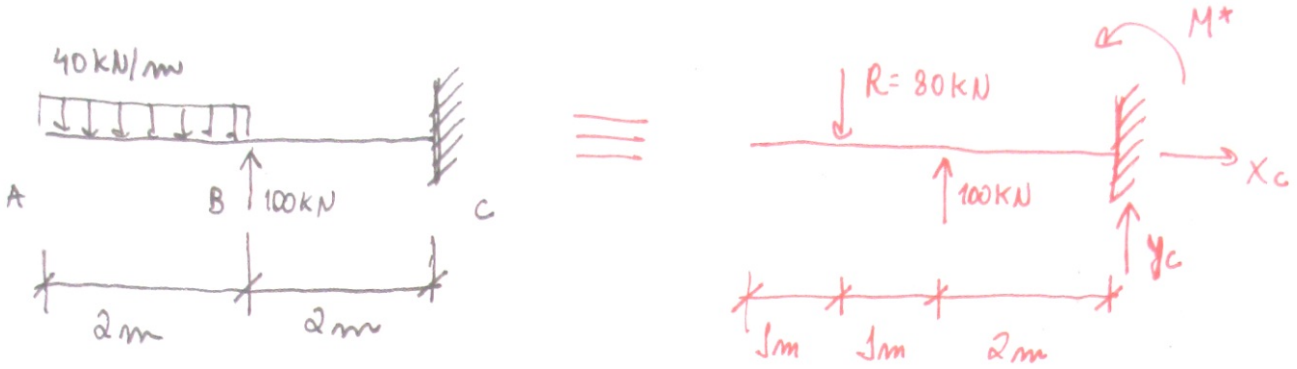
EXERCÍCIO 02

DETERMINAR AS REAÇÕES DE APOIO DAS DUAS VIGAS ABAIXO



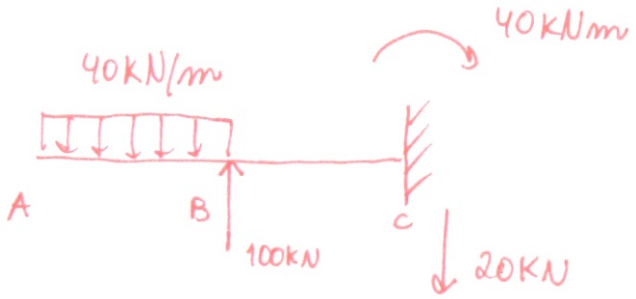
viga engastada equivalente

EQUAÇÕES DE EQUILÍBRIO:

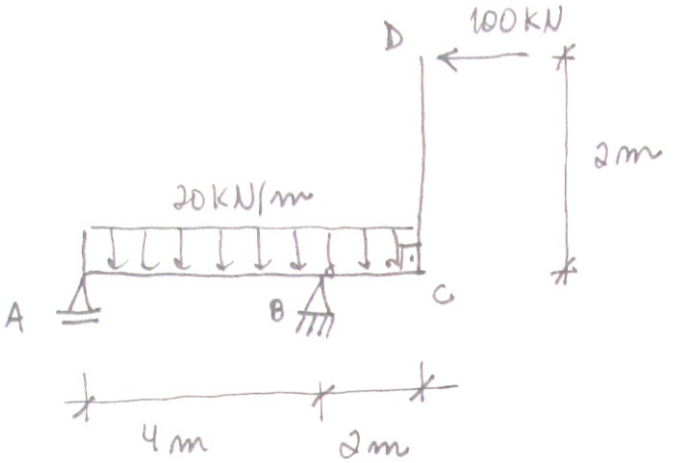
$\Sigma X_c = 0 \longrightarrow \underline{X_c = 0}$

$\Sigma Y_c = 0 \longrightarrow Y_c + 100 - 80 = 0 \longrightarrow \underline{Y_c = -20\,kN}$

$\Sigma M^* = 0 \longrightarrow 100 \cdot 2 - 80 \cdot 3 = 0 \longrightarrow \underline{M^* = -40\,kNm}$



DETERMINAR AS REAÇÕES DE APOIO NA VIGA.



(sem escala!)

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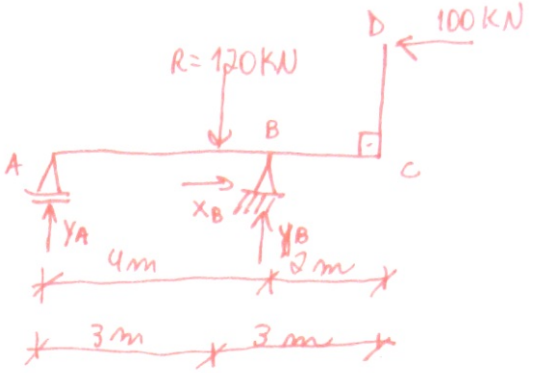


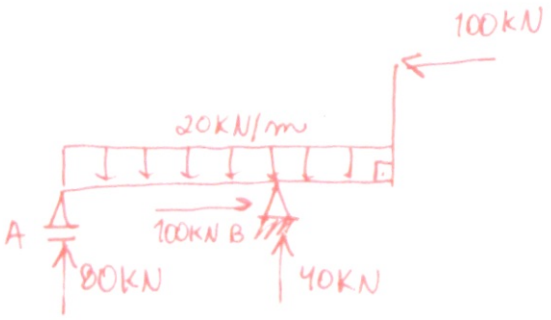
<sentidos positivos>

EQUAÇÕES DE EQUILÍBRIO:

$\Sigma x = 0 \rightarrow X_B - 100 = 0 \rightarrow \underline{X_B = 100KN}$

$\Sigma y = 0 \rightarrow Y_A + Y_B + 120 = 0 \rightarrow Y_A + Y_B = 120$

$\Sigma M_B = 0 \rightarrow 100 \cdot 2 + 120 \cdot 1 - Y_A \cdot 4 = 0$

$200 + 120 = 4 Y_A \rightarrow Y_A = \frac{320}{4} = 80KN \qquad \underline{Y_A = 80KN}$

$80 + Y_B = 120 \rightarrow \underline{Y_B = 40KN}$