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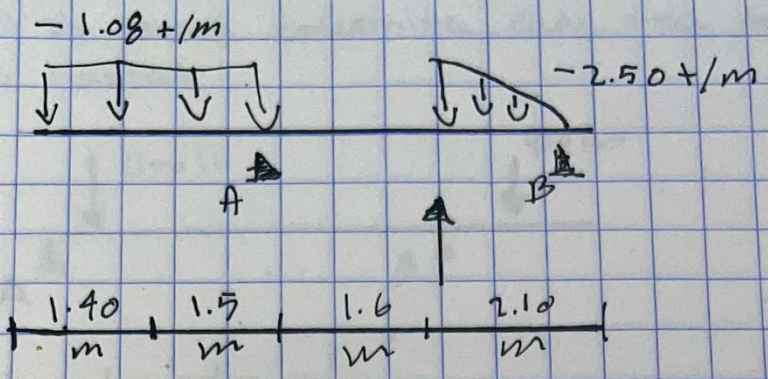
Licenciatura: Arquitectura
Materia: Estatica
Cuatrimestre: 3
Unidad: 1



$\Sigma M = 0$

$[(1.512\ t/m)\,0.7] + [(3.10)\,1.5] + [(RB)(5.2)] + [(-2.625)\,3.8m)]$

$1.0584 + 4.65 + (RB)5.2 - 9.975$

$4.267\ t/m\ (RB)\,5.2m$

$RB = \frac{4.267}{5.2}$

$RB = 0.82$

$\Sigma M = 0$

$RA = -1.512 + 3.10 - 2.625 + 0.82 = 0$

$RA = -4.137 + 3.92 = 0$

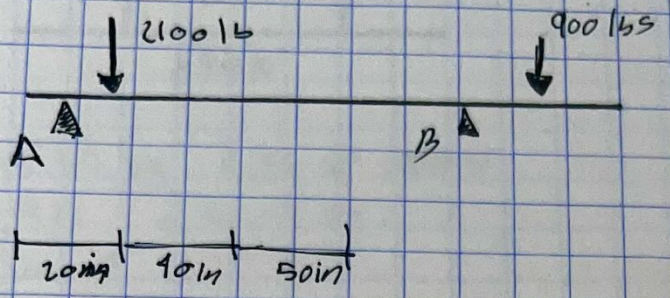
$RA = -0.217 = 0$

$RA = 0.217$

$\Sigma Fy = 0$

$-1.512 + 3.10 - 2.625 + 0.217 = 0$

Un tractor de 2100 lbs se utiliza para levantar 900 lbs de grava determina cada una de las reacciones de sus llantas.



$$\sum M = 0$$

$$[(-2100\,lb)\,20in] + [(+900\,lb)\,110in)] + [(RB)\,60in] =$$

$$-42{,}000\ lb\,in - 99{,}000\ lb\,in + (RB)\,60in$$

$$-141{,}000\ lb\,in + (RB)\,60in$$

$$141{,}000\ lb\,in / 60in$$

$$RB = 2350\ lb$$

$$\sum M = 0$$

$$RA = +2100 - 900 + 2350 = 0$$

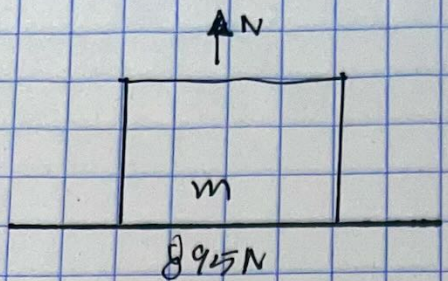
$$RA = -3000 + 2350\ lb = 0$$

$$RA = -650\ lb = 0$$

$$RA = 650\ lb$$

$$\sum M = 0$$

$$650 - 2100 - 900 + 2350\ lb = 0$$

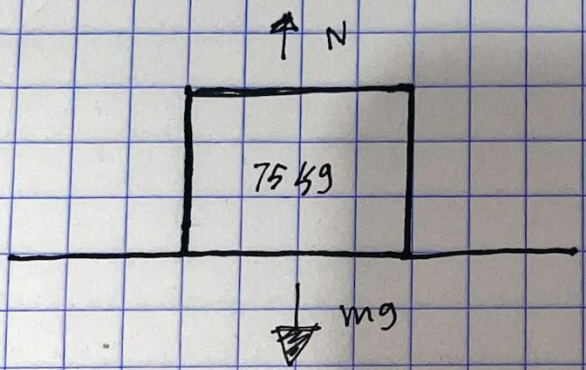


$\Sigma F_y = 0$

$\Sigma F_y = 895 - 895\,N = 0$

$N = 91.32\,kg \cdot 9.8\,m/s^2 = 895\,N$

$m = \frac{895\,N}{9.8\,m/s^2} = 91.32\,kg$



$\Sigma F_y = 0$

$\Sigma F_y = 735\,N - 735\,N = 0$

$N = 75\,kg \cdot 9.81\,m/s^2 = 735\,N$

$mg = 75\,kg \cdot 9.81\,m/s^2 \cdot 735\,N$