Ejercicios

Nombre del Alumno: Pablo Daniel Castro Herrera

Nombre del tema: **Momentos**

Parcial: III

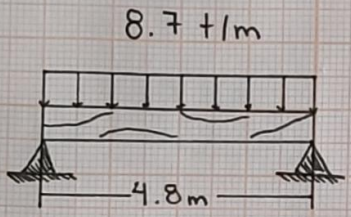
Nombre de la Materia: Resistencia de materiales

Nombre del profesor: Arq. Pedro Garcia

Nombre de la Licenciatura: Arquitectura

Cuatrimestre: 4

Fecha: 11 de noviembre 2023

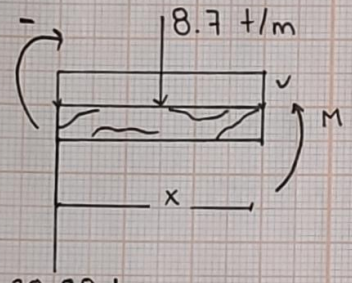


$q \cdot L =$

$8.7\ t/m\ (4.8\ m) = 41.76\ ton$

$R_A = R_B =$

$$\frac{8.7\ t/m\ (4.8m)}{2} = 20.88\ ton$$



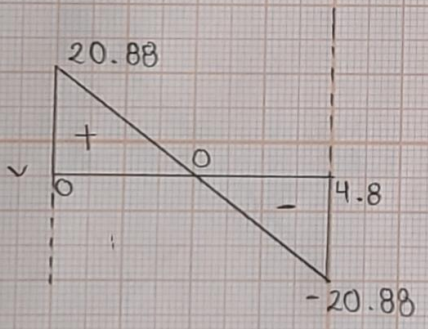
$\Sigma F_y = 0$

$V = 20.88\ ton\ [\ 8.7\ t/m\ (x)\ ]$

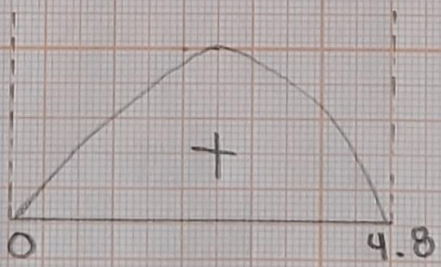
$\Sigma M = 0$

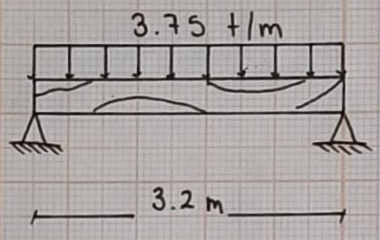
$M = 20.88\ ton\ (x) - 4.35\ ton/m\ (x^2)$

X	0	1.2	2.4	3.6	4.8
V	20.88	10.4	0	-10.4	-20.88



X	0	1.2	2.4	3.6	4.8
M	20.88	18.7	25	18.7	0



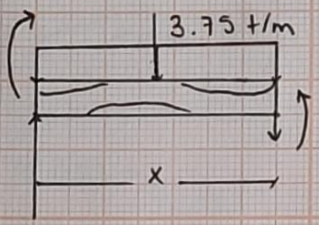


$q \cdot L =$

$3.75\ t/m\ (3.20\ m) = 12\ t$

$R_A - R_B = \frac{qL}{2}$

$\frac{3.75\ t/m\ (3.20\ m)}{2} = 6\ t$



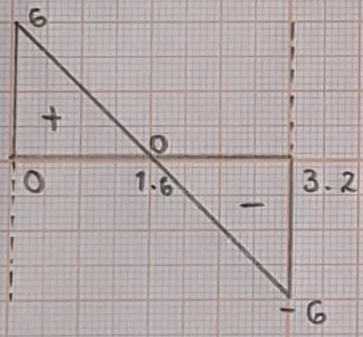
$\Sigma F_y = 0$

$V = 6\ t - [3.75\ t/m\ (x)]$

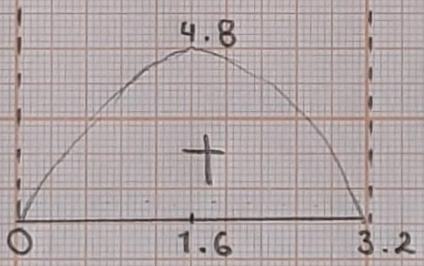
$\Sigma M = 0$

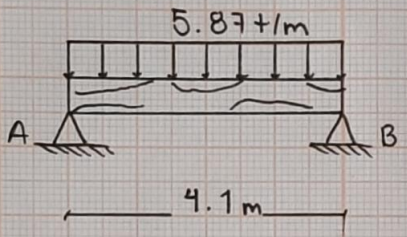
$M - 6\ t\ (x) - 1.875\ t/m\ (x^2)$

X	0	0.8	1.6	2.4	3.2
V	6	3	0	-3	-6



X	0	0.8	1.6	2.4	3.2
M	0	3.6	4.8	3.6	0



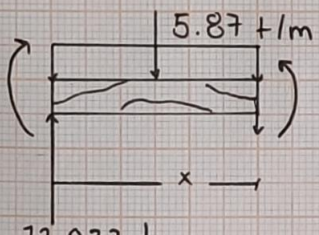


$q \cdot L =$

$5.87\ t/m\ (4.10\ m) = 24.067\ t$

$R_A = R_B = \frac{qL}{2}$

$\frac{5.87\ t/m\ (4.10\ m)}{2} = 12.0335\ t$



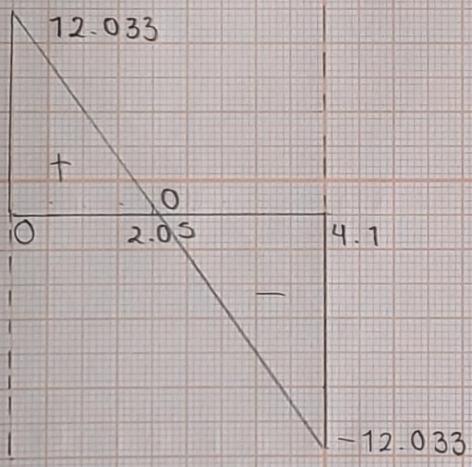
$\Sigma F_y = 0$

$V = 12.033\ t - [5.87\ t/m\ (x)]$

$\Sigma M = 0$

$M = 12.033\ t\ (x) - 2.935\ t/m\ (x^2)$

X	0	1.025	2.05	3.075	4.1
V	12.033	6.016	0	-6.016	-12.033



X	0	1.025	2.05	3.075	4.1
M	0	9.25	12,33	9.25	0