UDS

Mi Universidad

Nombre del Alumno José Amílcar Trejo hidalgo

Nombre del tema: plano

Parcial 4

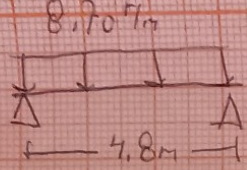
Nombre de la materia: topografia

Nombre del profesor :pedro Alberto

Nombre de la Licenciatura arquitectura

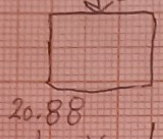
Cuatrimestre 4to

$9.L = 8.70 \cdot 4.8 = 41.76$ ton



$RA = RB = 9.L/2 = (8.70 \cdot 4.8)/2 = 20.88$ ton

$\Sigma F_y = 0 \quad 20.88 - [8.7\ T/m - (x)] - V = 0$



$V = 20.88 \text{ ton} - [8.7\ T/m - x]$

$\Sigma M = 0 \quad -20.88 \text{ ton} \cdot x + [8.7\ T/m\ (x) \cdot (x/2)] + m = 0$

$m\ (20.88 \text{ ton} \cdot x) - \frac{(x)^3}{4.35}$

Grafica de Cortante

X	0	1.2	2.4	3.6	4.8
V	20.88	10.44	0	-10.44	-20.88

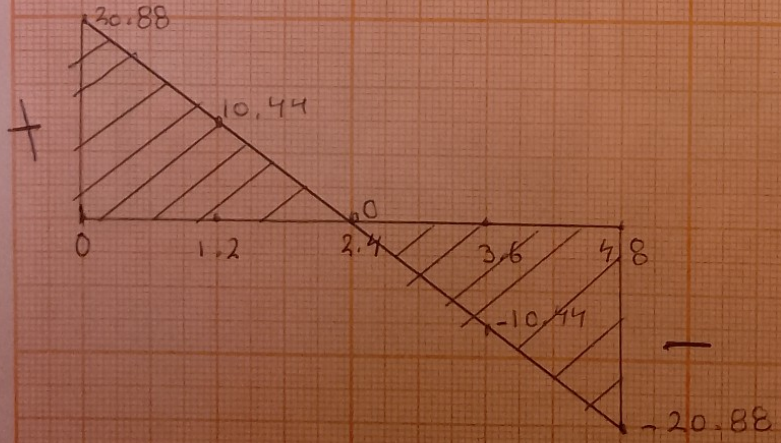
$V = 20.88 \text{ ton} - [8.7\ T/m \cdot (0)] = 20.88$

$V = 20.88 \text{ ton} - [8.7\ T/m \cdot (1.2)] = 10.44$

$V = 20.88 \text{ ton} - [8.7\ T/m \cdot (2.4)] = 0$

$V = 20.88 \text{ ton} - [8.7\ T/m \cdot (3.6)] = -10.44$

$V = 20.88 \text{ ton} - [8.7\ T/m \cdot (4.8)] = -20.88$

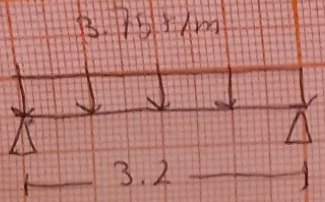


X	0	1,2	2,4	3,6	4,8
M	0	18,792	25,056	18,792	0

M = (20,88 ton · 1,2) − [4,35 · (1,2²)] = 18,792

M = (20,88 ton · 2,4) − [4,35 · (2,4²)] = 25,056

M = (20,88 ton · 3,6) − [4,35 · (3,6²)] = 18,792



$q \cdot L = 3.75\ t/m \cdot 3.2m = 12\ ton$

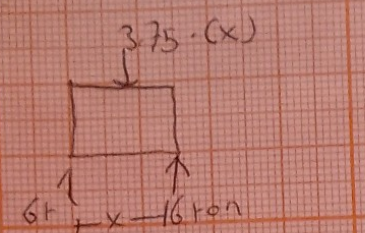
$RA = RB = q \cdot L/2 = (3.75\ t/m \cdot 3.2)/2 = 6\ ton$

$\Sigma F_y = 0 \quad 6\,ton - [3.75\ t/m \cdot (x)] - V = 0$

$V = 6\,ton - [3.75\ t/m \cdot x]$

$\Sigma M = 0 \quad -6\,ton \cdot x + [3.75\ t/m\,(x) \cdot (x/2)]\,tm = 0$

$M = (6\,ton \cdot x) - (1.875\ t/m \cdot (x)^2)$



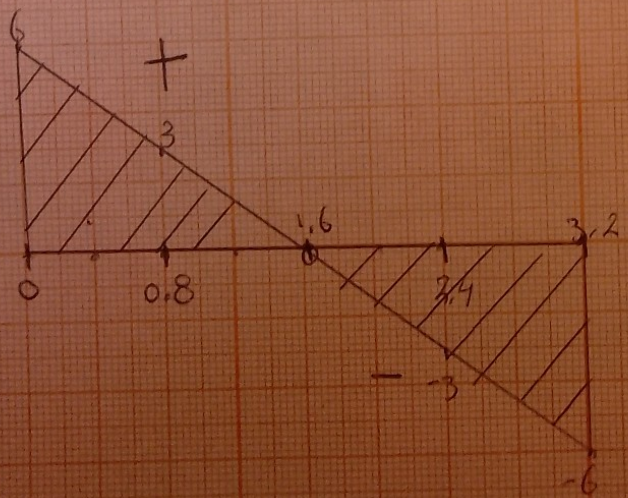
x	0	0.8	1.6	2.4	3.2
V	6	3	0	-3	-6

$V = 6\,ton - [3.75\ t/m \cdot 0] = 6$

$V = 6\,ton - [3.75\ t/m \cdot 0.8] = 3$

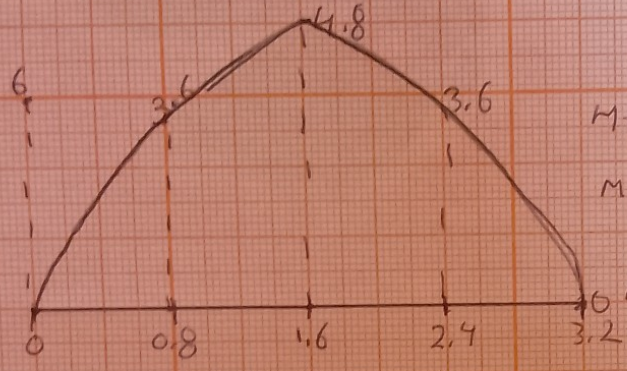
$V = 6\,ton - [3.75\ t/m - 2.4] - 3$

$V = 6\,ton - [3.75\ t/m \cdot 3.2] = -6$



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

Grafica de momento

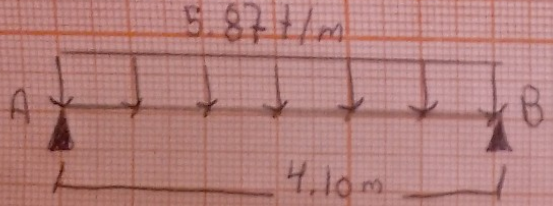


$M = (6\,ton \cdot 0.8m) - [3.75\,t/m\,(0.8)^2] = 3.6$

$M = (6\,ton \cdot 1.6m) - [1.875\,t/m\,(1.6)^2] = 4.8$

$M = (6\,ton \cdot 2.4m) - [1.875\,t/m\,(2.4)^2] = 3.6$

$M = (6\,ton \cdot 3.2m) - [1.875\,t/m \cdot (3.6)^2] = 0$



$q \cdot L = 5.87\ t/m \cdot 4.10\ m = 24.067\ ton$

$RA = RB = (5.87 \cdot 4.10)/2 = 12.0335\ ton$

$\sum fy = 0 \quad 12.0335 - [5.87\ t/m \cdot x] - V = 0$

$V = 12.0335\ ton - [5.87\ t/m \cdot x]$

$\sum m = 012335 \cdot x + [87\ t/m \cdot (x) \cdot (x)\ 1/2]\ M = 0$

$M = (12.0335\ ton \cdot x) - (2.935 \cdot x^2)$

X

X	0	1.025	2.05	3.075	4.10
V	12.0335	6.01675	0	-6.01675	-12.0335

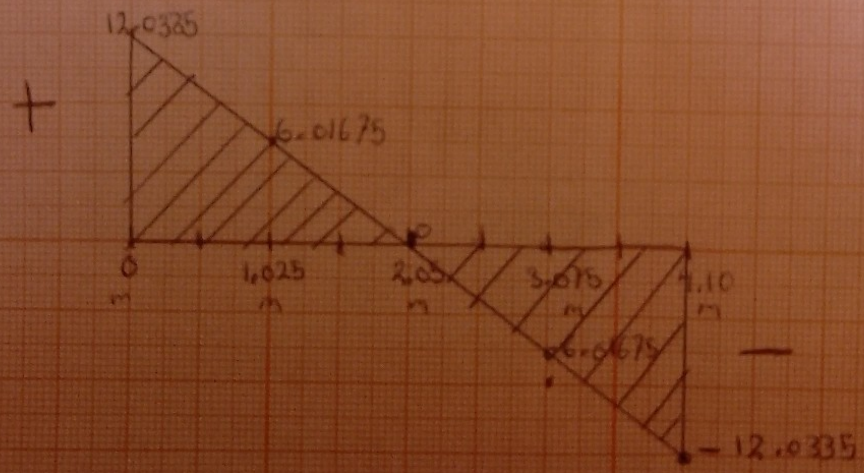
$V = 12.0335\ ton - [5.87\ t/m \cdot 0] = 12.0335$

$V = 12.0335\ ton - [5.87\ t/m \cdot 1.025] = 6.01675$

$V = 12.0335\ ton - [5.87\ t/m \cdot 2.05] = 0$

$V = 12.0335\ ton - [5.87\ t/m\ 3.075] = -6.01675$

$V = 12.0335\ ton - [5.87\ t/m \cdot 4.1] = -12.0335$



X	0	1.025	2.05	3.075	4.1
M	0	9.2507	11.47	9.2507	0

$M = (12.0335 \cdot 1.025m) - (5.935 \cdot (1.025)^2) = 9.2507$

$M = (12.0335 \cdot 2.05) - (5.935 (2.05)^2) = 11.74$

$M = (12.0335 \cdot 3.075) - (5.935 (3.075)^2) = 9.2507$

$M = (12.0335 \cdot 4.1) - (2.935 (4.1)^2) = 0$

Grafica de Momento