UDS

Mi Universidad

reacciones

Nombre del Alumno: Gael Federico López Ochoa

Nombre del tema: trabajo virtual

Parcial: 3

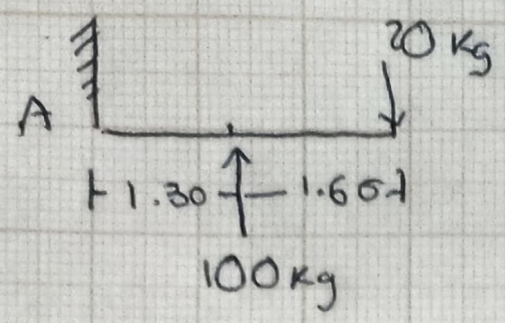
Nombre de la Materia: estatica para la arquitectura

Nombre del profesor: pedro Alberto García

Nombre de la Licenciatura: arquitectura

Cuatrimestre: 3

①

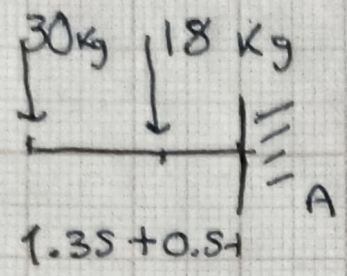


$1.30 \cdot 100 = 130$ $\quad 2.9 \cdot 20 = -58$

$130\ Kg \cdot m - 58\ Kg \cdot m = 0$

$M_A = 72\ Kg \cdot m$

②

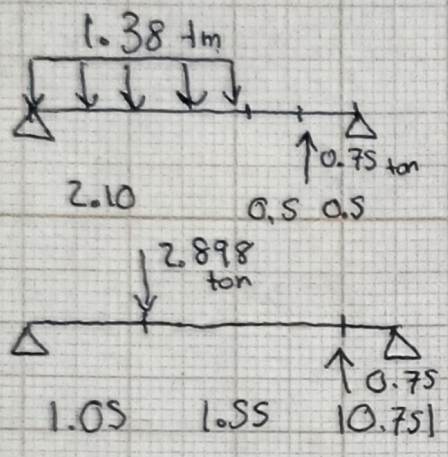


$M_A = (18\ Kg \cdot .50m) + (30 \cdot 1.85m)$

$M_A = (9\ Kg \cdot m) + (55.5) = 0$

$M_A = 64.5\ Kg \cdot m$

③



$P = W \cdot L \quad P = 1.38\ t \cdot m \cdot 2.10m \quad P = 2.898\ ton$

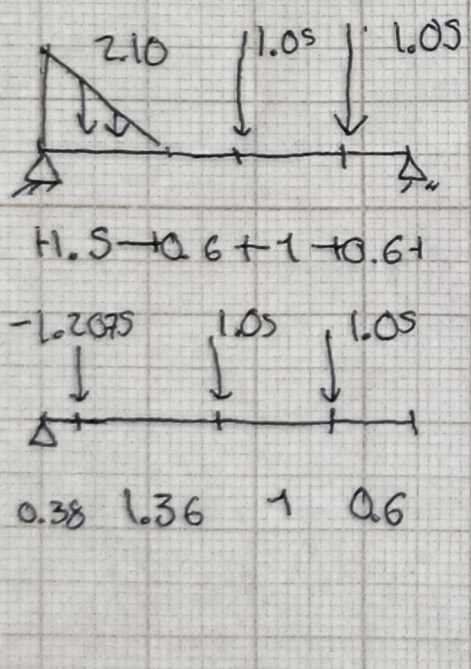
$up = L/2 \quad 2.10/2 \quad up = 1.05$

$M_A = [-2.898\ ton \cdot (1.05m)] + [+0.75 \cdot (2.6m)]$

$-3.0429 + 1.95\ ton \cdot m$

$-1.0929\ ton \cdot m$

④



$P = W \cdot L/2 = 2.10 \cdot 1.15/2 \quad P = 1.2075\ ton \cdot m$

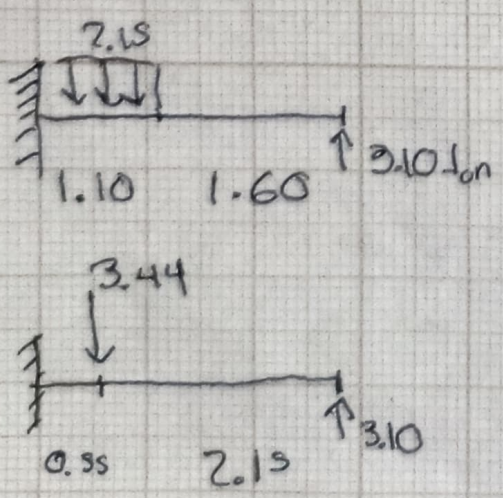
$up = 1.15 / 3 = 0.3833\ m$

$M_A = [-1.2075(0.3833)] + [1.05 \cdot 1.75] + [1.05 + (2.75)]$

$M_A = (-0.4628) + (-1.8375) - 2.8875$

$M_A = -5.1878\ ton$

⑤

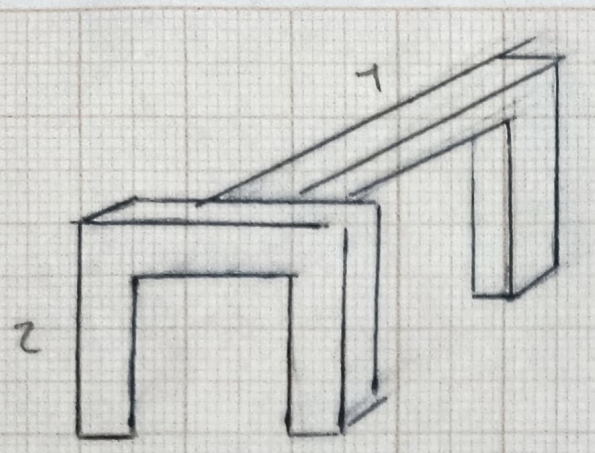


$W \cdot L = 2.15 \cdot 1.1 = 2.365 \quad up = L/2 = 1.10/2 = 0.55$

$M_A = (0.55 \cdot -2.365) + (3.1 \cdot 1.7)$

$M_A = 1.30075 + 5.27$

$M_A = 3.969\ t \cdot m$



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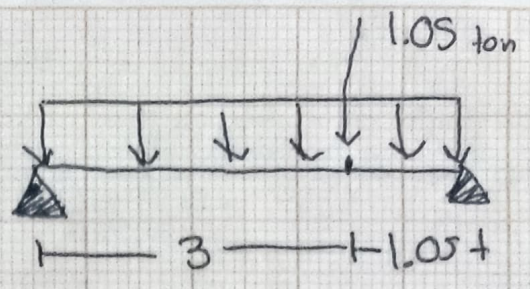
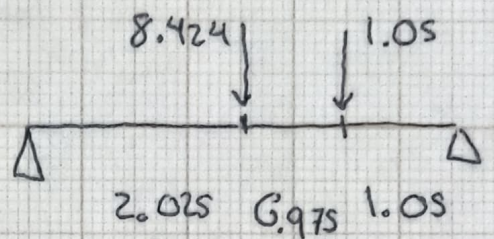


$W \cdot L = 2.08 \cdot 4.05 = 8.424$



$MA = [-8.424\ ton \cdot (2.025)] + [-1.05 \cdot (3)] + (RB \cdot 4.05)$

$-17.0586\ ton \cdot m + -3.15\ ton \cdot m + RB \cdot 4.05$

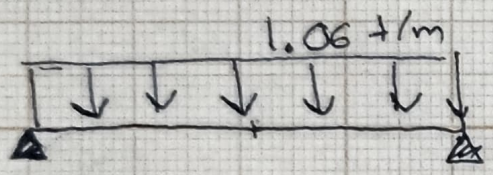
$-20.2086 \cdot RB \cdot 4.05$

$RB = -20.2086\ ton \cdot m / 4.05\ m$

$RB = -4.98977\ ton$

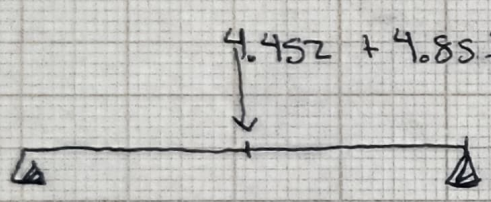
$RA = -8.424 - 1.05 + 4.989 = 4.485\ ton$

②



$W \cdot L = 1.06\ t/m \cdot 4.2 = 4.452$

$Up = 4.2 / 2 = 2.10$



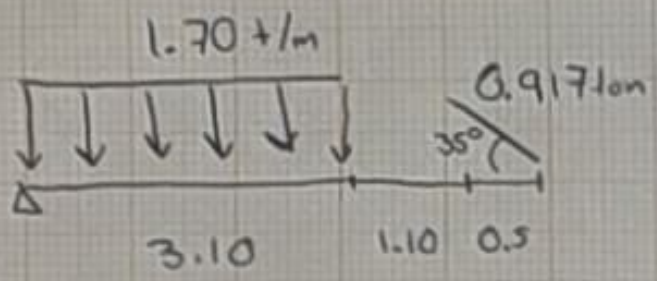
$MA = (-8.937\ ton \cdot 2.1)] + [RB \cdot 4.2m]$

$-18.7677\ ton \cdot m + RB \cdot 4.2$

$RB - 18.7677 / 4.2$

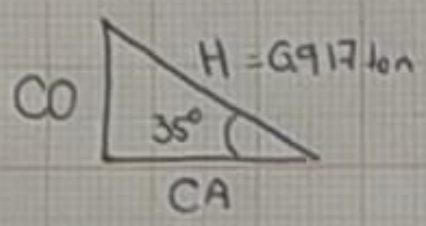
$RB = +4.4685\ ton$

$RA = -8.937\ ton + 4.4685\ ton = 4.4685\ ton$



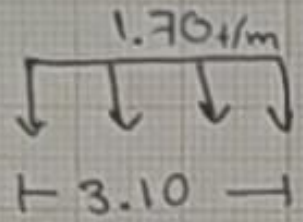
$Sen\theta = CO/H = Co = Sen\theta \cdot H$

$y = Sen\ 35° \cdot (0.917\ ton) = 0.5259\ ton$



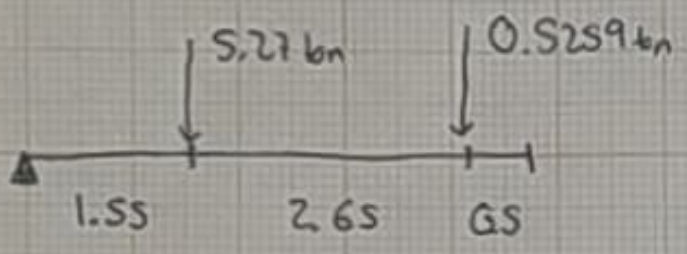
$Cos\theta = CA/H$

$x = CA = (cos\ 35° \cdot (0.917\ ton) = 0.7511\ ton$



$W.L = 1.70 \cdot 3.10 = 5.27\ ton$

$up = L/2 = 3.10\ (2) = 1.55\ m$



$M_A = [(5.27\ ton \cdot (1.55\ m)] + (0.5559\ ton \cdot 4.2) + (RB \cdot 4.7)$

$8.1685\ ton \cdot m + 2.208\ 78\ ton \cdot m + RB \cdot 4.7$

$RB = 10.377\ 28\ ton \cdot m\ /4.7\ m$

$RB = 2.2079\ ton$