Iber Emanuel Vázquez Arguello
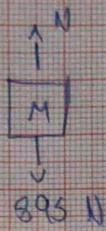
Arq. Pedro Alberto García

Estatica

Estática Para La Arquitectura

3er Semestre

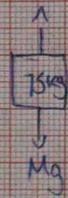Comitán de Domínguez Chiapas a 21 de mayo de 2023.

Encontrar la masa y comprobar equilibrio

↑ N

[M]

↓

895 N

$M = 91.23$

$N = 895$

$895 \div 9.81 = 91.23$

$Efc = 895 - 895 = 0$

Comprobar equilibrio

↑ N

[75kg]

↓ Mg

$N = 735$

$Mg = 75$

$Efc = 735\,N - 735\,N = 0$

$75 \times 9.81 = 735$
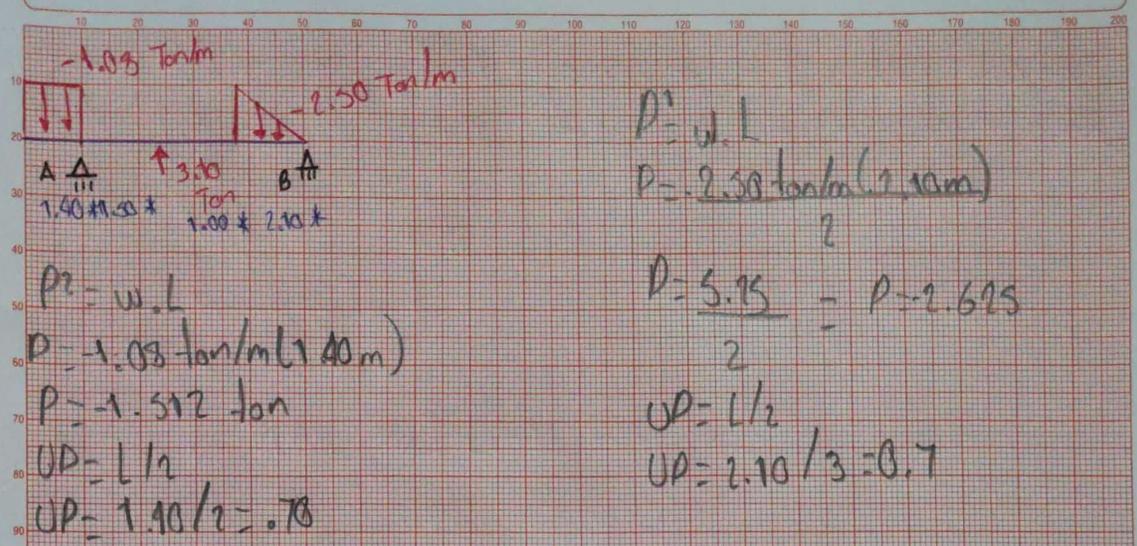
−1.03 Ton/m

−2.50 Ton/m

A   ↑3.10   B
       Ton
1.40+1.50 *   1.00 * 2.10 *

$P^2 = w \cdot L$

$P = -1.03 \text{ ton/m}(1.40m)$

$P = -1.512 \text{ ton}$

$UP = L/2$

$UP = 1.40/2 = .70$

$P^1 = w \cdot L$

$P = \dfrac{-2.50 \text{ ton/m}(2.10m)}{2}$

$P = \dfrac{5.25}{2} = P = -2.625$

$UP = L/2$

$UP = 2.10/3 = 0.7$

$RB = [-1.512 \text{ ton}(0.70m) + [3.10 \text{ ton}(1.50m) + [-2.625 \text{ ton}(3.8m) + RB \cdot 5.2$
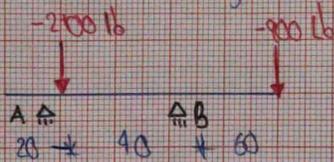
$= RB = \dfrac{4.267}{5.2} = 0.82$ 5.2.0

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

$RA = -0.217$

$RA = 0.217 \text{ ton}$

$-1.512 + 0.217 + 3.10 - 2.625 + 0.82 = 0$

Un tractor de 2100 libras se utiliza para levantar 900 libras de grava, determina la reacción de cada uno de sus ejes.

$-2100\ lb$ $-900\ lb$

A   B

20   40   60

$RB = [(-2100\ lb)20''] + [(-900\ lb)110''] + [RB(60'')] = 0$

$= -42000''\ lb - 9900 + RB \cdot 60'' = 0$

$= -141000 + RB \cdot 60'' = 0$

$RB = \dfrac{141000}{60} = 2350$

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

$-650 = 650$

$650 - 2100 - 900 + 2350 = 0$