UDS

Mi Universidad

Nombre del Alumno: Frida Lizbeth Reséndiz Salazar

Nombre del tema : Momentos

Parcial : 2

Nombre de la Materia : Resistencia de materiales

Nombre del profesor: Pedro Alberto García López

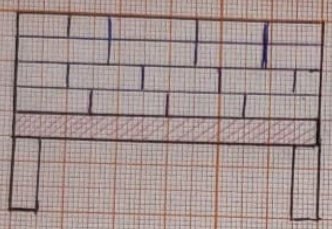
Nombre de la Licenciatura: Arquitectura

Cuatrimestre: 4

0.01302

170,813.

605.43



5.70 m

3.20 m

Resendiz Salazar Frida Lizbeth

Concreto Reforzado

Muro de block = 270 kg/m

0.25

$h = \frac{L}{12} = \frac{3.20m}{12} = 0.2666\,m$

0.15m

$b = 0.5(h) \rightarrow 0.25(0.5) = 0.12\,m$

P.P trabe = 0.25m · 0.15m · 2400 kg/m

= 90 kg/m

P.P Muro = 5.70m (270 kg/m)

= 1539 kg/m

1539 kg/m

+ 90 kg/m

1,629 kg/m = 1629 t·m

$M = \frac{1}{8} qL^2 \rightarrow$

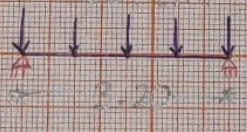
$\frac{1629(3.20)^2}{8}$

M = 2.085 ton·m

$RA = RB = \frac{q \cdot L}{2}$

$\frac{1629(3.20)}{2} =$

RA=RB = 2.606 ton



3.20

$\theta A = \theta B = \frac{qL^3}{24EI}$

$Ix = \frac{0.15(0.25)^3}{12}$

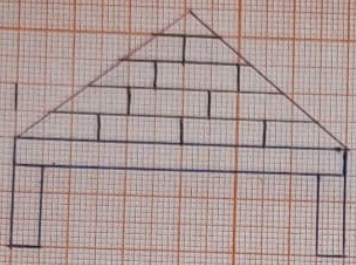
$Ix = 0.0001953\,m^4$

$\theta A = \theta B = \frac{1629\,t/m\,(3.20)^3}{24(3100000)(0.0001953\,m^4)} = 0.003673$

$f = \frac{5}{384} \cdot \frac{qL^4}{EI}$

$f = \frac{5}{384} \cdot \frac{1629\,t/m\,(3.20)^4}{3100000 \cdot 0.0001953\,m^4} = 0.00367339$

Rayter



Resendiz Salazar
Frida Lizbeth

Concreto Reforzado

Muro de Block = 270 kg/m

$h = \frac{L}{12} = \frac{5.70\,m}{12} = 0.475\,m \approx 0.50\,m$

$b = 0.5(h) \rightarrow 0.50(0.5) = 0.25\,m$

P.P viga = $0.50 \cdot 0.25 \cdot 2400$

= 300 kg/m

f.f Muro = 3.18 m (270 kg/m)

= 858.6

$M = \frac{qL^2}{12} \rightarrow \frac{1158\,(5.70)^2}{12}$

= 17.871 ton·m

$RA = RB = \frac{q \cdot L}{2}$

$RA = RB = \frac{1158 \cdot 5.70}{2}$

$RA = RB = 1.650$ ton

$\frac{858.6}{300}$

1,158 kg/m = 1158 t·m

$\theta A = \theta B = \frac{5\,qL^3}{196 \cdot EI}$

$\theta A = \theta B = \frac{1158\ t/m\,(5.70)^3}{196\,(3100000) \cdot 0.002604\,m^4} = 0.000677$

$Ix = \frac{0.25\,(0.50)^3}{12}$

$Ix = 0.002604\,m^4$

$f = \frac{qL^4}{120 \cdot EI}$

$F = \frac{1158\ t/m\,(5.70)^4}{120\,(3100000) \cdot 0.002604} = 0.001261$