



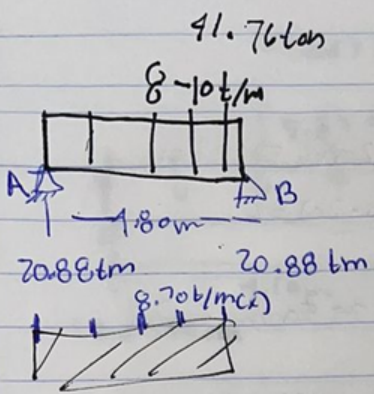
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Licenciatura: Arquitectura

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Cuatrimestre: 4to

Materia: Resistencia de materiales

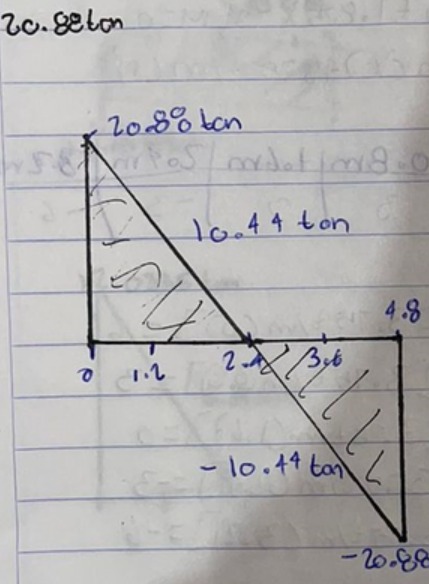


$$8.70 \text{ t/m} (4.80 \text{ m}) = 41.76 \text{ tm}$$

$$\frac{8.70 \text{ t/m} (4.80)}{2} = 20.88 \text{ tm}$$

$$20.88 \text{ tm} - [8.70 \text{ t/m}(x)] - y = 0$$

$$V = 20.88 \text{ tm} - [8.70 \text{ t/m}(x)]$$



$$20.88 \text{ tm} + 4.35 x^2 + M = 0 = 0$$

$$M = 20.88 \text{ tm}(x) - 4.35 \text{ t/m}(x^2)$$

X	V	0	1.2m	2.4	3.6m	4.8m
V	20.88	10.44	0	-0.44	-20.88	

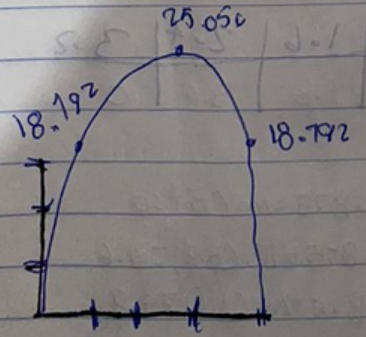
$$V = 20.88 \text{ tm} - [8.70 \text{ t/m}(0)](0) = 20.88$$

$$= 20.88 \text{ tm} - [8.70 \text{ t/m}(1.2)] = 10.44$$

$$= 20.88 \text{ tm} - [8.70 \text{ t/m}(2.4)] = 0$$

$$= 20.88 \text{ tm} - [8.70 \text{ t/m}(3.6)] = -0.44$$

$$= 20.88 \text{ tm} - [8.70 \text{ t/m}(4.8)] = -20.88$$



X	0	1.2	2.4	3.6m	4.8
V	0	18.792	25.05	18.792	0

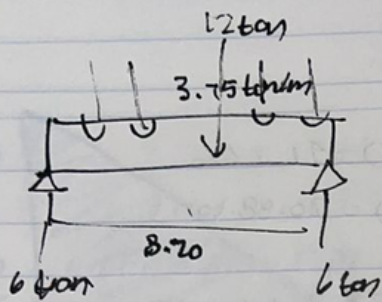
$$M = 20.88 \text{ tm} \cdot (0) - 4.35 \text{ t/m}(0)^2 = 0$$

$$M = 20.88 \text{ tm} \cdot (1.2 \text{ m}) - 4.35 \text{ t/m}(1.2)^2 = 18.792$$

$$M = 20.88 \text{ tm}(2.4) - 4.35 \text{ t/m}(2.4)^2 = 25.05$$

$$M = 20.88 \text{ tm}(3.6) - 4.35 \text{ t/m}(3.6)^2 = 18.792$$

$$M = 20.88 \text{ tm}(4.8) - 4.35 \text{ t/m}(4.8)^2 = 0$$



$$3.75 \text{ t/m} (3.20 \text{ m}) = 12 \text{ ton}$$

$$3.75 \text{ t/m} (8.20) = 6$$

$$6 \text{ ton} - [3.75 \text{ t/m} (x)]$$

$$-6 \text{ ton} (x) + 1.875 x^2 + M = 0$$

$$M = -6 \text{ ton} (x) + 1.875 x^2$$

1

X	0	0.8 m	1.6 m	2.4 m	3.2 m	8.2 m
V	6	3	0	-3	-6	

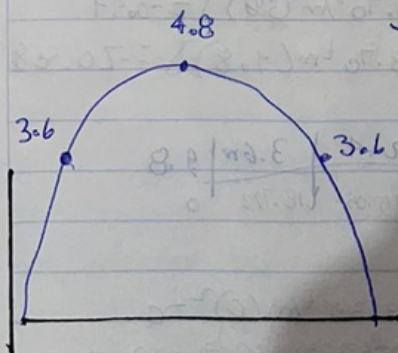
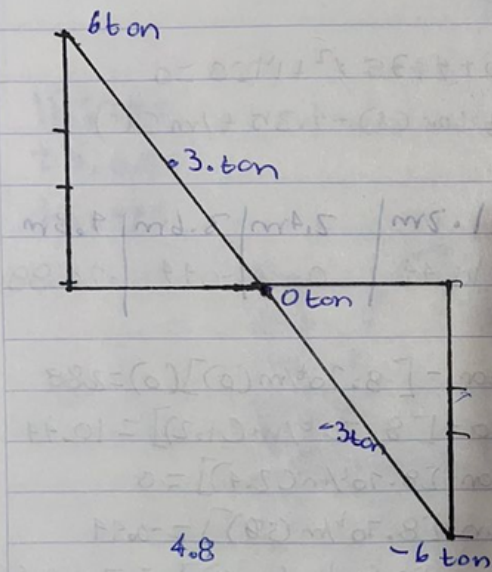
$$V = 6 \text{ ton} - [3.75 \text{ t/m} (x)] = 6$$

$$V = 6 \text{ ton} - [3.75 \text{ t/m} (0.8)] = 3$$

$$V = 6 \text{ ton} - [3.75 \text{ t/m} (1.6)] = 0$$

$$V = 6 \text{ ton} - [3.75 \text{ t/m} (2.4)] = -3$$

$$V = 6 \text{ ton} - [3.75 \text{ t/m} (3.2)] = -6$$



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

$$M = 6 \text{ ton} (x) - 1.875 \text{ t/m} (x)^2 = 0$$

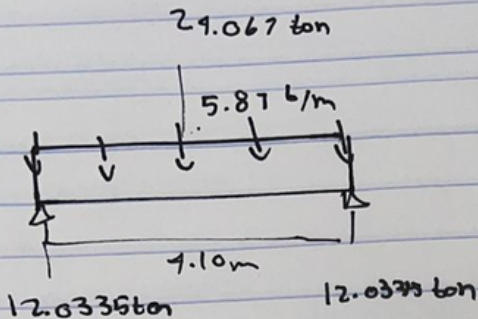
$$M = 6 \text{ ton} (0.8) - 1.875 \text{ t/m} (0.8)^2 = 3.6$$

$$M = 6 \text{ ton} (1.6) - 1.875 \text{ t/m} (1.6)^2 = 4.8$$

$$M = 6 \text{ ton} (2.4) - 1.875 \text{ t/m} (2.4)^2 = 3.6$$

$$M = 6 \text{ ton} (3.2) - 1.875 \text{ t/m} (3.2)^2 = 0$$



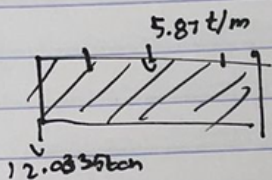


$$5.87 \text{ t/m} (1.0) = 29.067 \text{ ton}$$

$$5.87 \text{ t/m} \left( \frac{4.10 \text{ m}}{2} \right) = 12.0335 \text{ ton}$$

$$12.0335 \text{ ton} - [5.87 \text{ t/m} (1)] = 0$$

$$V = 12.0335 \text{ ton} - [5.87 \text{ t/m} (1)]$$



$$-12.0335 - [5.87 \text{ t/m} (1) (1/2)] \text{ km} = 0$$

$$-12.0335 (1) + \frac{5.87 \text{ t/m} (1^2)}{2} = 0$$

$$-12.0335 (1) + 5.87 \text{ t/m} (1) = 0$$

$$-2.0335 (1) + 5.87 \text{ t/m} (1) = 0$$

$$-M = 12.0335 (1) - 2.935 \text{ t/m} (1^2)$$

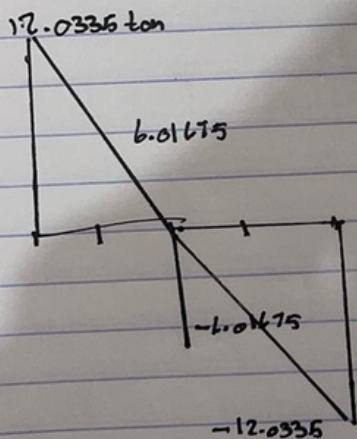
V	1.02	2.05	3.07	4.1
X	6.01675	0	-6.01675	-12.0335

$$V = 12.0335 \text{ ton} - [5.87 \text{ t/m} (1.02)] = 6.01675$$

$$V = 12.0335 \text{ ton} - [5.87 \text{ t/m} (2.05)] = 0$$

$$V = 12.0335 \text{ ton} - [5.87 \text{ t/m} (3.07)] = -6.01675$$

$$V = 12.0335 \text{ ton} - [5.87 \text{ t/m} (4.1)] = -12.0335$$



V	1.025	2.05	3.07	4.1
X	-24.7719	12.3343	9.2507	0

$$M = 12.0335 \text{ ton} (1.025) - 2.935 \text{ t/m} (1.025^2) = 21.7719$$

$$M = 12.0335 \text{ ton} (2.05) - 2.935 \text{ t/m} (2.05^2) = 12.3343$$

$$M = 12.0335 \text{ ton} (3.07) - 2.935 \text{ t/m} (3.07^2) = 9.2507$$

$$M = 12.0335 \text{ ton} (4.1) - 2.935 \text{ t/m} (4.1^2) = 0$$

