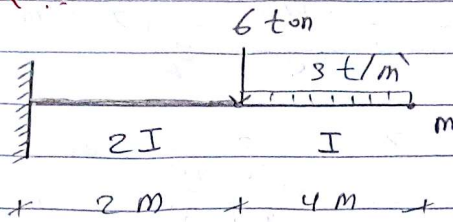


* نمونه 2 اثرات *

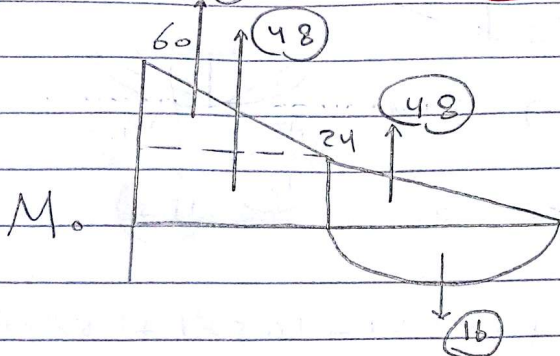
Ex:



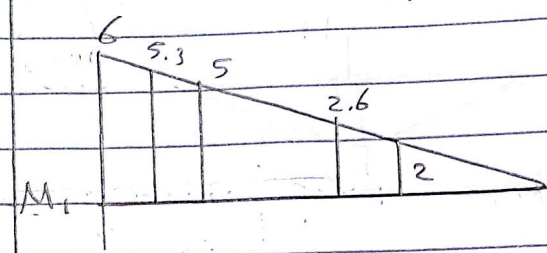
→ Find δ_m

محترم تغییر ال I
محترم مکان و جانب

$$\delta = \int \frac{M_0 M_1}{EI} dx$$



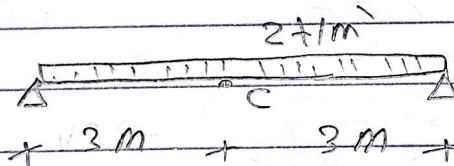
طاب م و طاب 1 و طاب 2



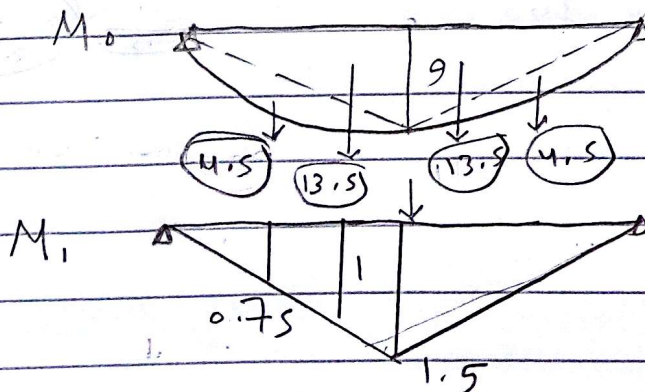
$$\delta_m = \frac{1}{EI} [48 \times 2.66 - 16 \times 2] + \frac{1}{2EI} (36 \times 5.3 + 48 \times 5)$$

$$= \frac{317.33}{EI}$$

Ex 2



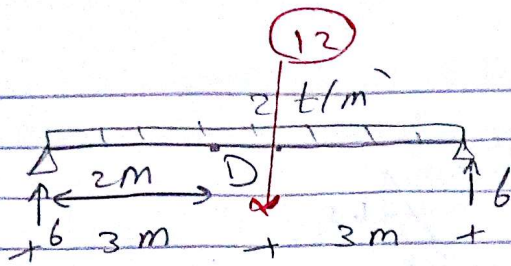
Find δ_c



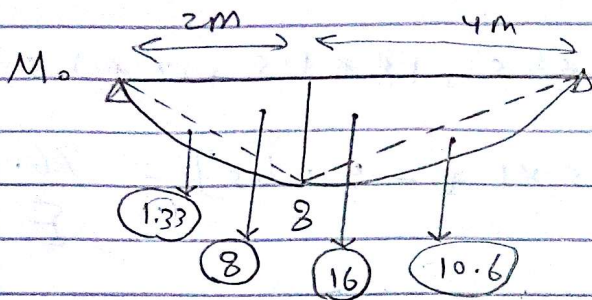
C is 1 ton

عشان الخط انكر لازم اقصه
از بین

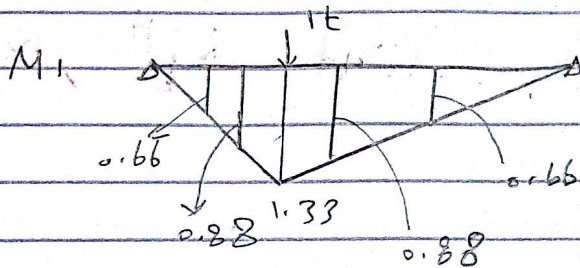
$$\delta_c = \frac{1}{EI} (4.5 \times 0.75 + 13.5 \times 1) \times 2 = \frac{33.75}{EI}$$



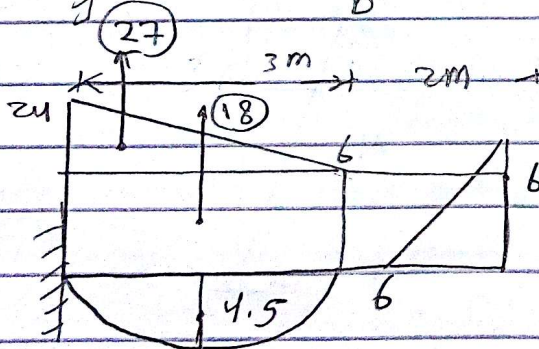
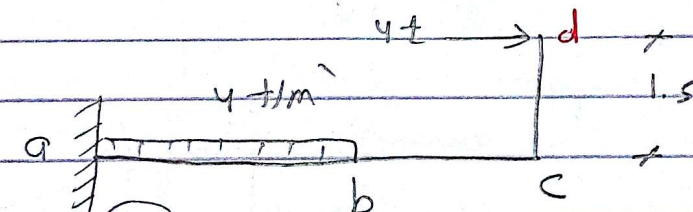
Find δ_D



$$\delta_D = \frac{1}{EI} [1.33 \times 0.66 + 8 \times 0.88 + 16 \times 0.88 + 10.6 \times 0.66]$$

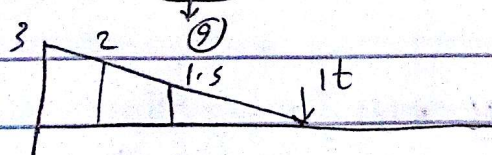


Ex

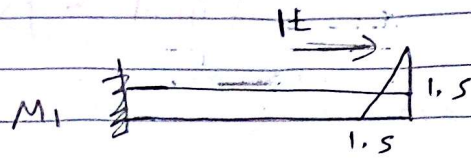


$$\delta_b = \frac{1}{EI} [27 \times 2 + 18 \times 1.5 - 9 \times 1.5]$$

$$= \frac{67.5}{EI}$$

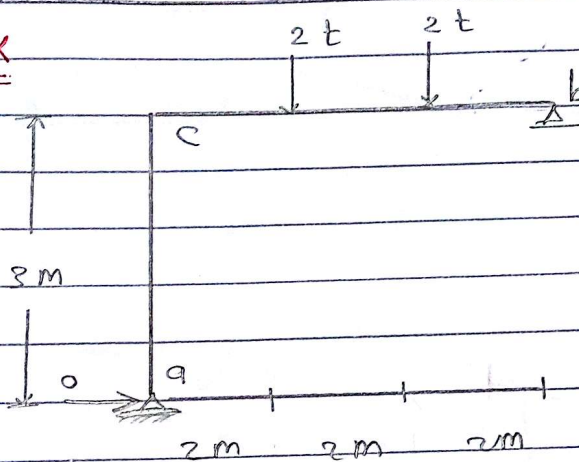


Find δ

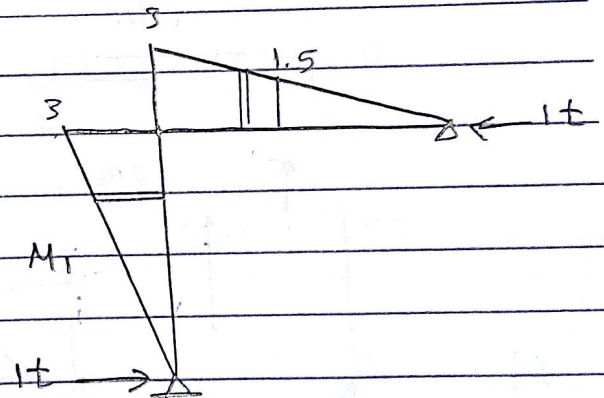
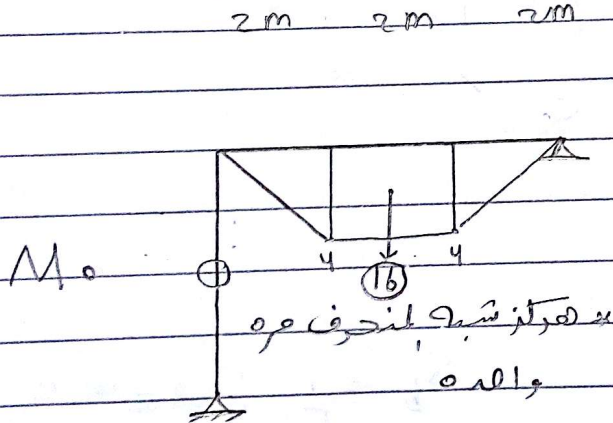


$$\delta = \frac{1}{EI} [27 \times 1.5 + 18 \times 1.5 + 12 \times 1.5 + 4.5 \times 1 - 9 \times 1.5] = \frac{76.5}{EI}$$

ex

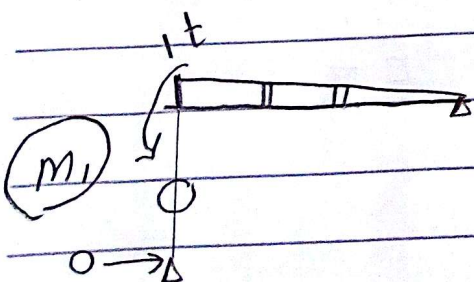


Find δ_b^H, θ_c

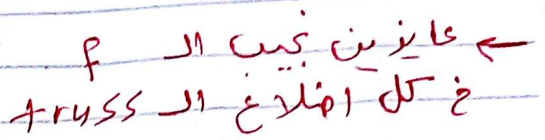


$$\delta_b^H = \frac{1}{EI} [-16 \times 1.5] = \frac{-24}{EI}$$

لايجاد θ_c ازل عزم عند c



$$\theta_c = \frac{1}{EI} [-16 \times 0.5] = \frac{-8}{EI}$$

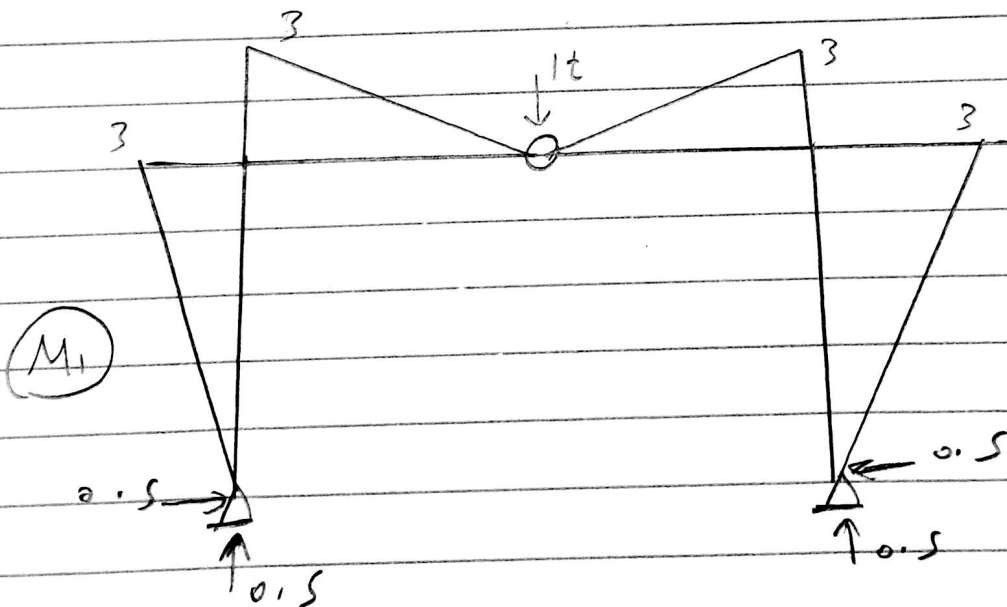


δ_c



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c. 18,



* عايز σ_c بـ التين كرم

