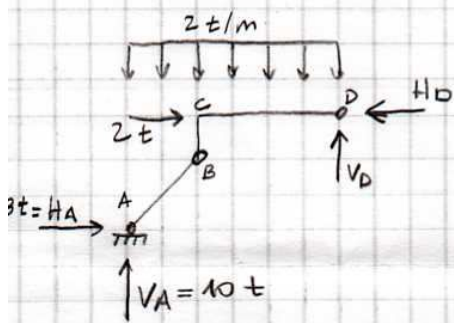
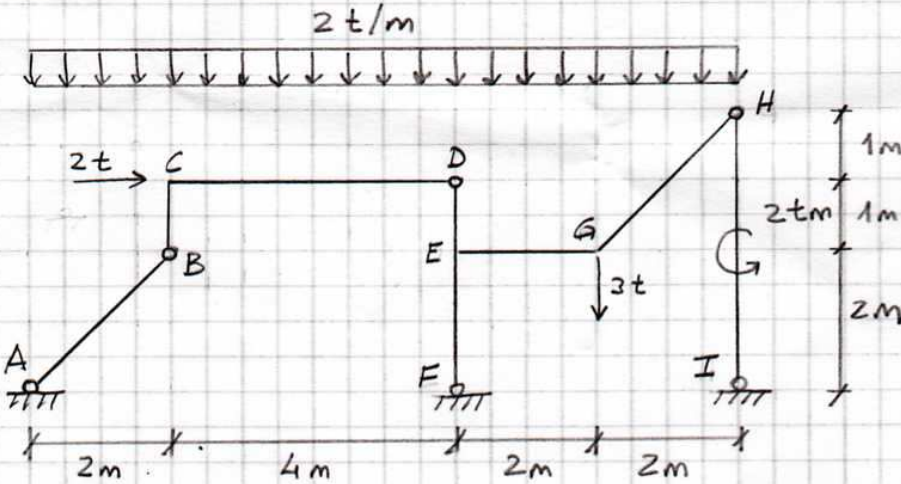


Solución Primer Parcial 2010

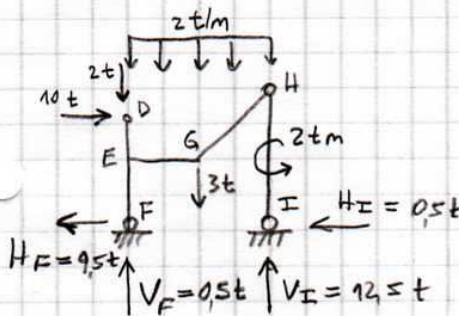
EJERCICIO 2



$$\left. \begin{aligned} 2V_A - 2H_A &= 2 \cdot 2 \Rightarrow V_A - H_A = 2 \\ 6V_A - 3H_A &= 2 \cdot 6 \cdot 3 \Rightarrow 2V_A - H_A = 12 \end{aligned} \right\} \Rightarrow \begin{aligned} V_A &= 10t \\ H_A &= 8t \end{aligned}$$

$$10 + V_D = 6 \cdot 2 \Rightarrow V_D = 2t$$

$$H_D = 8 + 2 \Rightarrow H_D = 10t$$



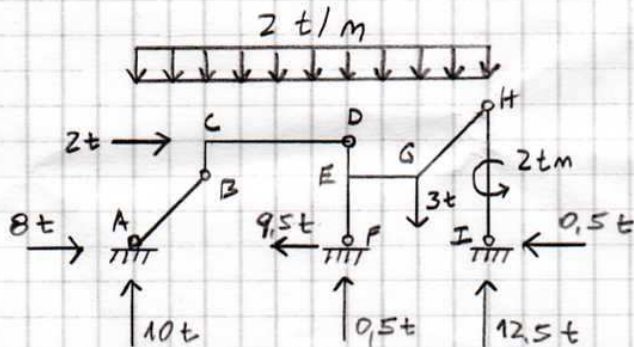
$$4H_I = 2 \Rightarrow H_I = 0,5t$$

$$H_F + 0,5 = 10 \Rightarrow H_F = 9,5t$$

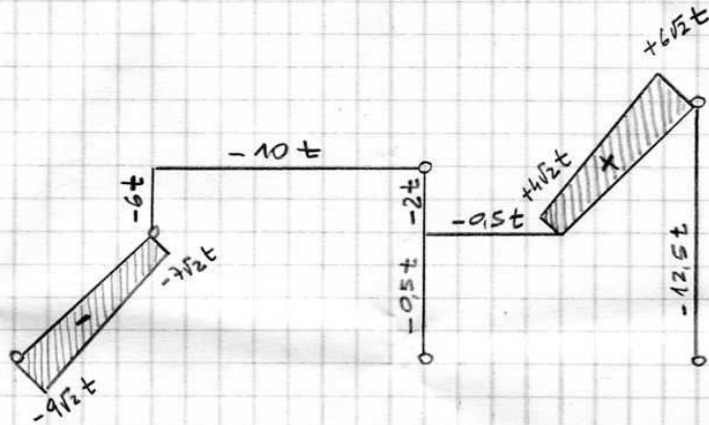
$$4V_F + 10 \cdot 3 - 2 \cdot 4 - 2 \cdot 4 \cdot 2 - 3 \cdot 2 - 2 = 0$$

$$4V_F = 32 - 30 \Rightarrow V_F = 0,5t$$

$$0,5 + V_I = 2 + 3 + 4 \cdot 2 \Rightarrow V_I = 12,5t$$



(N)



En AB

$$N_A = -(8+10) \frac{\sqrt{2}}{2} = -9\sqrt{2}t = -12,73t$$

$$N_B = -12,73 + 2 \cdot 2 \frac{\sqrt{2}}{2} = -7\sqrt{2}t = -9,90t$$

En CD

$$N_C = N_D = -8 - 2 = -10t$$

En BC

$$N_B = N_C = -10 + 2 \cdot 2 = -6t$$

En DE

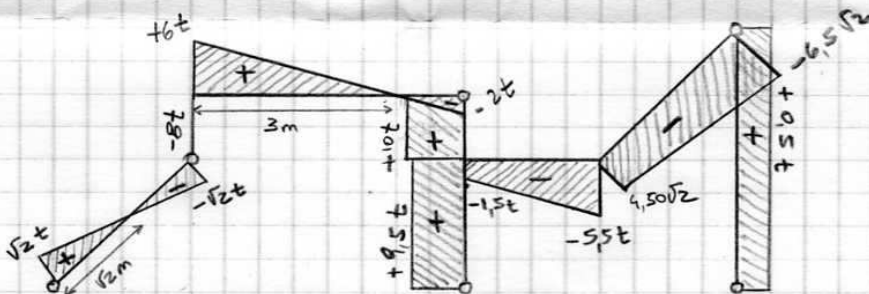
$$N_D = N_E = 10 - 6 \cdot 2 = -2t$$

En GH

$$N_H = 12,5 \frac{\sqrt{2}}{2} - 0,5 \frac{\sqrt{2}}{2} = 6\sqrt{2} = +8,49t$$

$$N_G = +6\sqrt{2} - 2 \cdot 2 \frac{\sqrt{2}}{2} = +4\sqrt{2}t = 5,66t$$

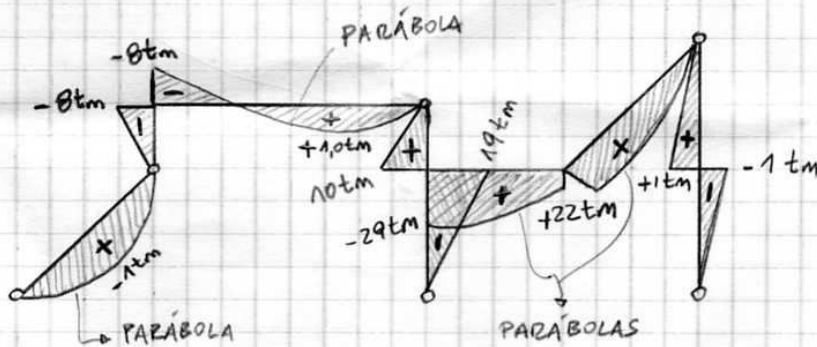
(V)



En EG

$$V_E = (10 + 0,5 - 3 - 8 \cdot 2 - 8 - 2 + 9,5) \frac{\sqrt{2}}{2} = -4,5\sqrt{2} = -6,36t / -4,5\sqrt{2} - 2 \cdot 2 \frac{\sqrt{2}}{2} = -6,5\sqrt{2} = -9,19t$$

(M)



$$10,5 - 8 \cdot 3 - 5 \cdot 2 \cdot 2,5 = 1tm$$