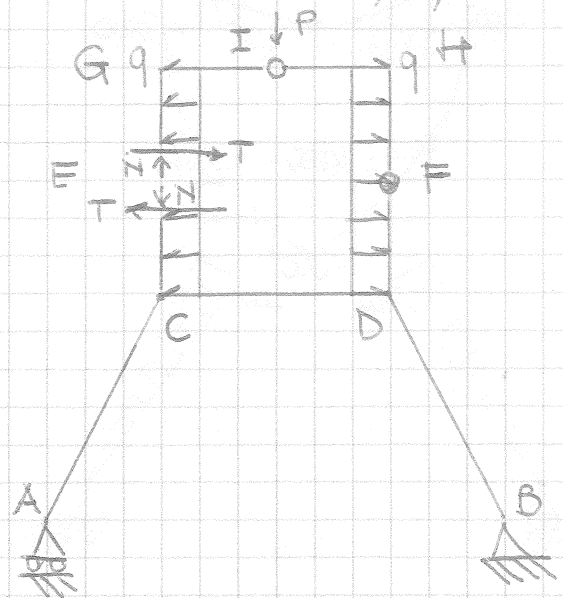
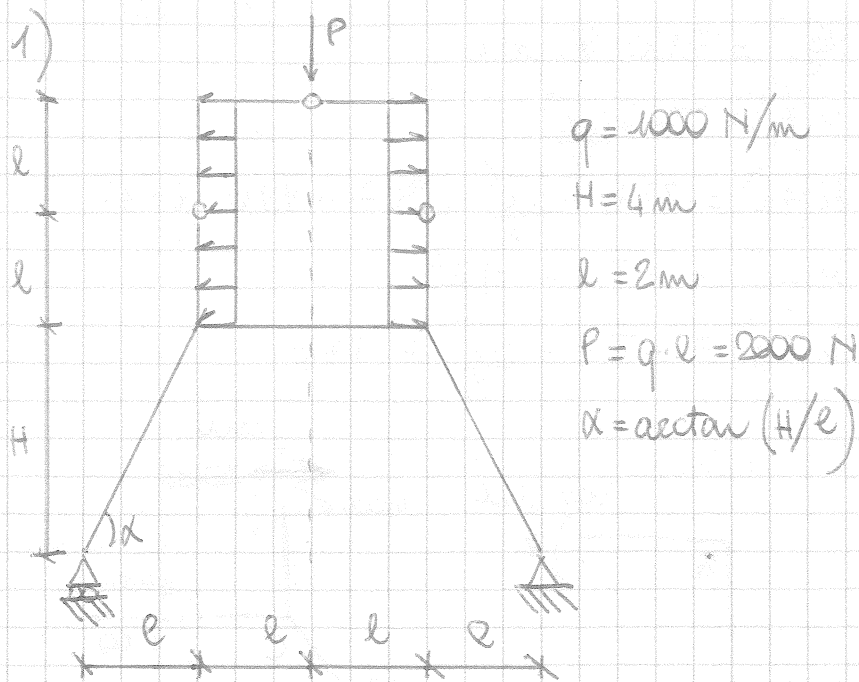
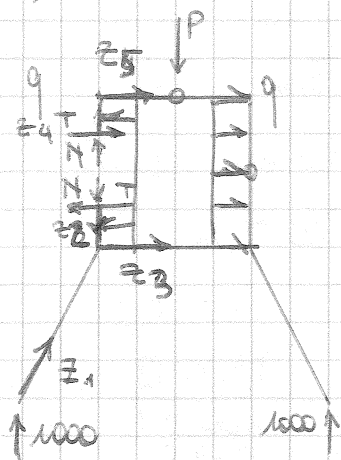




$\rightarrow) H_B = 0$
 $\uparrow) P + V_A + V_B = 0$
 $V_A = V_B = \frac{q \cdot l}{2} = 1000 \text{ N}$
 $F) \text{ tratto FHIGE}$
 $P \cdot l - N \cdot 2l = 0$
 $N = \frac{q \cdot l}{2} = 1000 \text{ N}$
 $I) \text{ tratto IGE}$
 $-P \cdot \frac{l}{2} - N \cdot l + T \cdot l = 0$
 $T = \frac{q \cdot l}{2} + N = 2000 \text{ N}$



$N(z_1) = -1000 \cdot \sin \alpha = -894 \text{ N}$

$N(z_2) = -N = -1000 \text{ N}$

$N(z_3) = T + q \cdot l = 4000 \text{ N}$

$N(z_4) = -N = -1000 \text{ N}$

$N(z_5) = -T + q \cdot l = 0$

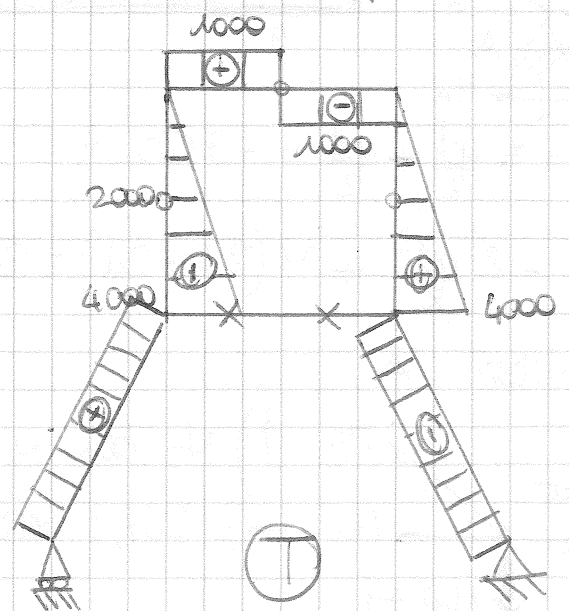
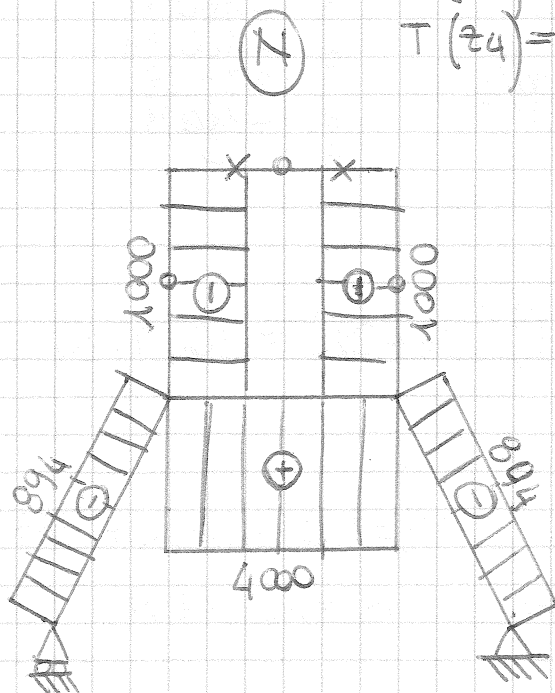
$T(z_2) = -T - q \cdot z$

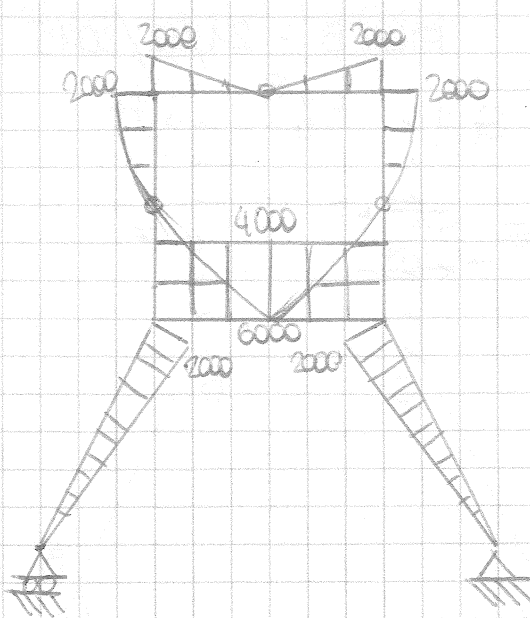
$T(z_4) = -T + q \cdot z$

$T(z_1) = T \cos \alpha = 447 \text{ N}$

$T(z_3) = +1000 - N = 0$

$T(z_5) = +T \sin \alpha = 1000 \text{ N}$





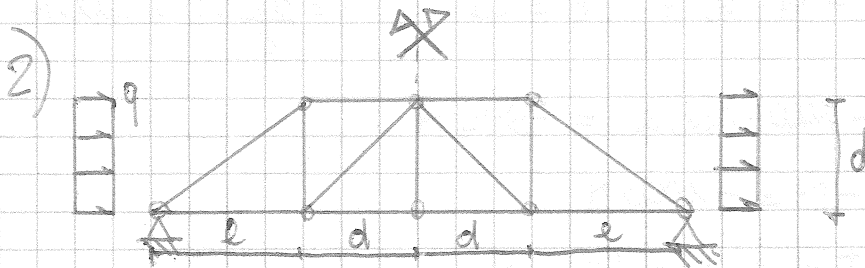
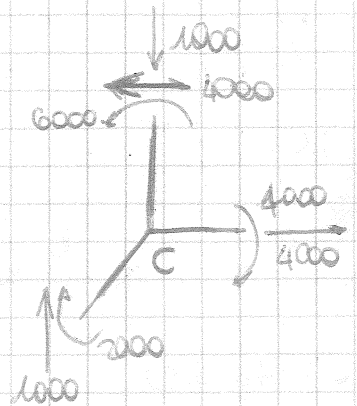
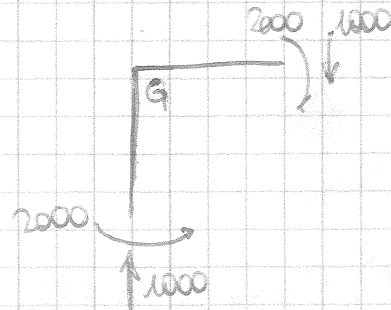
$$M(z_1) = 1000 \cdot z_1 \cos \alpha$$

$$M(z_2) = Tz + \frac{qz^2}{2}$$

$$M(z_3) = T \cdot l + \frac{ql^2}{2} + N \cdot z - 1000(l+z)$$

$$M(z_4) = -Tz + \frac{qz^2}{2}$$

$$M(z_5) = -T \cdot l + \frac{ql^2}{2} + Nz_5$$

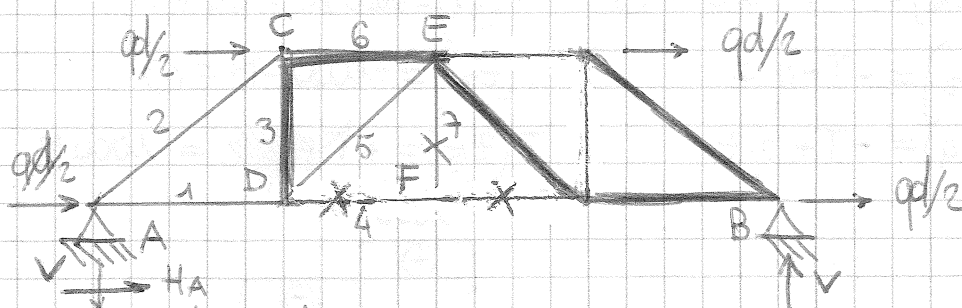


$$d = 1,5 \text{ m}$$

$$l = 2,0 \text{ m}$$

$$q = 500 \text{ N/m}$$

SOLLECITAZIONE PRIMARIA



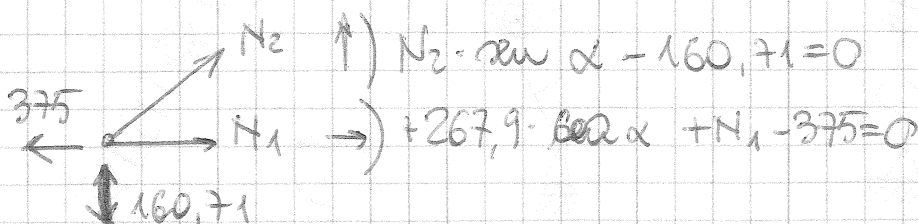
i	N [KN]
1	160,71
2	267,9
3	-160,71
4	0
5	227,28
6	-160,71
7	0

$$\rightarrow H_A = -\frac{qd}{2} + \frac{qd}{2} = -750 \text{ N}$$

$$B) -2 \frac{qd^2}{2} + V(2e+2d) = 0$$

$$V = qd^2 / (2e+2d) = 160,71 \text{ N}$$

Nodo A



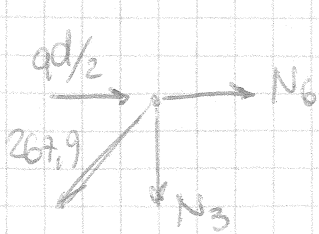
$$\uparrow N_2 \cdot \sin \alpha - 160,71 = 0$$

$$N_2 = 160,71 / \sin \alpha = 267,9 \text{ N}$$

$$\rightarrow +267,9 \cdot \cos \alpha + N_1 - 375 = 0$$

$$N_1 = 160,71 \text{ N}$$

NODE B



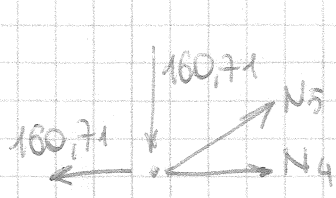
$$\rightarrow) \frac{qd}{2} + N_6 - 267,9 \cdot \sin \alpha = 0$$

$$N_6 = -160,71 \text{ N}$$

$$\uparrow) -267,9 \cdot \cos \alpha - N_3 = 0$$

$$N_3 = -160,71$$

NODE D



$$\uparrow) N_5 \cdot \frac{\sqrt{2}}{2} - 160,71 = 0$$

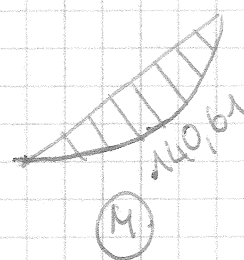
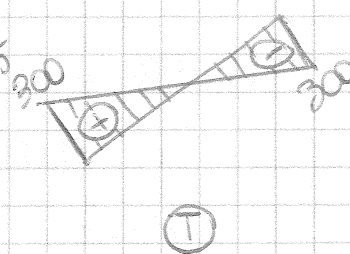
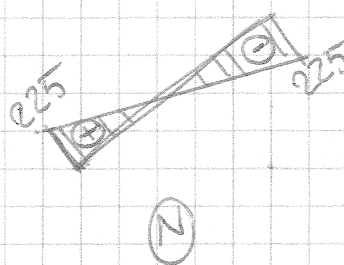
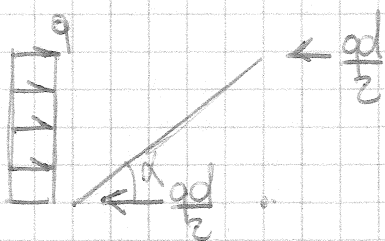
$$N_5 = 227,28 \text{ N}$$

$$\rightarrow) N_5 \cdot \frac{\sqrt{2}}{2} + N_4 - 160,71 = 0$$

$$N_4 = 0$$

SOLLECITAZIONE SECONDARIA

$$\alpha = \arctan(1,5/2) = 36,87^\circ$$



$$N(z) = \frac{qd}{2} \cdot \sin \alpha - qz \sin \alpha$$

$$T(z) = \frac{qd}{2} \cos \alpha - qz \cos \alpha$$

$$M(z) = \frac{qd}{2} \cdot z \sin \alpha - q \left(\frac{z \sin \alpha}{2} \right)^2$$