

dati:

$l = 3 \text{ m}$

$h = 6 \text{ m}$

$q = 2,5 \text{ KN/m}$

I tronco

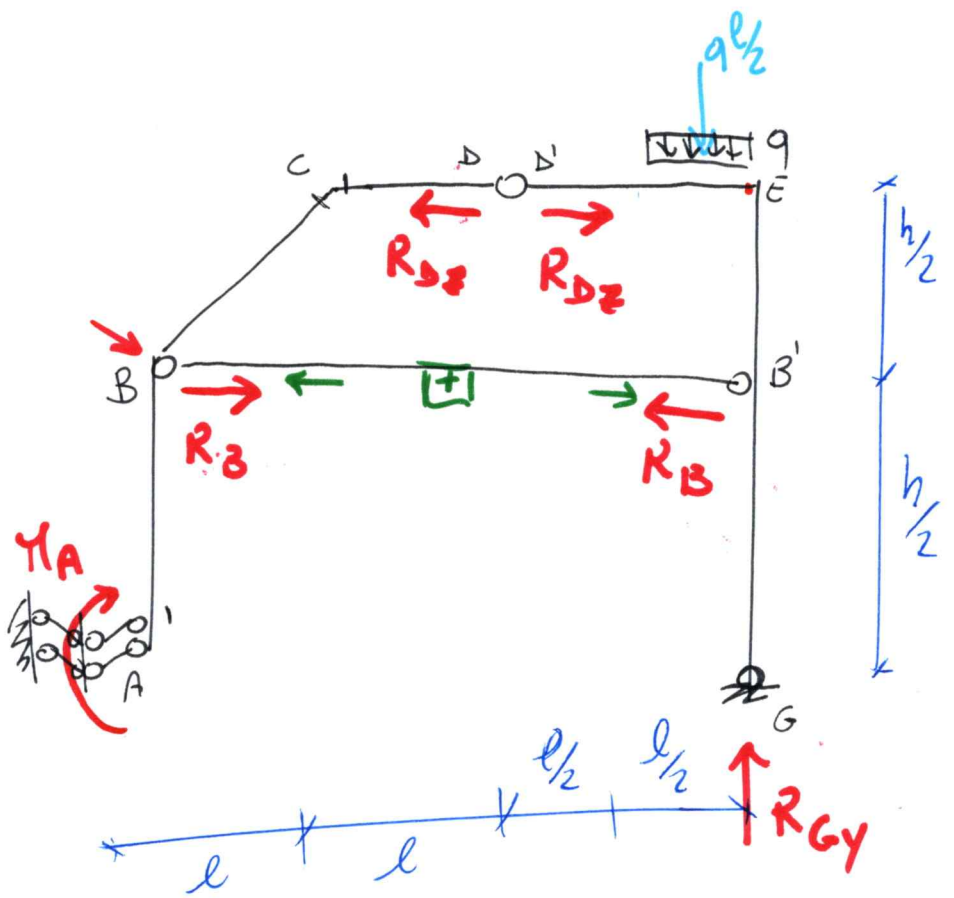
$$\left\{ \begin{array}{l} \downarrow) -R_{Dy} = 0 \rightarrow R_{Dy} = 0 \\ \rightarrow) -R_B + R_{Dz} = 0 \rightarrow R_B = R_{Dz} = -0,94 \text{ KN} \\ \curvearrowright) M_A - R_B \cdot \frac{h}{2} = 0 \rightarrow R_B = \frac{M_A \cdot 2}{h} \rightarrow M_A = \frac{R_B h}{2} = -2,82 \text{ KNm} \end{array} \right.$$

II tronco

$$\left\{ \begin{array}{l} \downarrow) R_{Dy} + q \frac{l}{2} - R_{Gy} = 0 \rightarrow R_{Gy} = q \frac{l}{2} = 3,75 \text{ KN} \\ \rightarrow) -R_{Dz} + R_B - R_{Gz} = 0 \rightarrow -R_B + R_B - R_{Gz} = 0 \rightarrow R_{Gz} = 0 \\ \curvearrowright) -q \frac{l}{2} \left(\frac{l}{4} + \frac{l}{2} \right) + R_B \cdot \frac{h}{2} + R_{Gy} \cdot l - R_{Gz} \cdot h = 0 \end{array} \right.$$

\downarrow \downarrow \downarrow
 $3,75 \text{ KN}$ 0

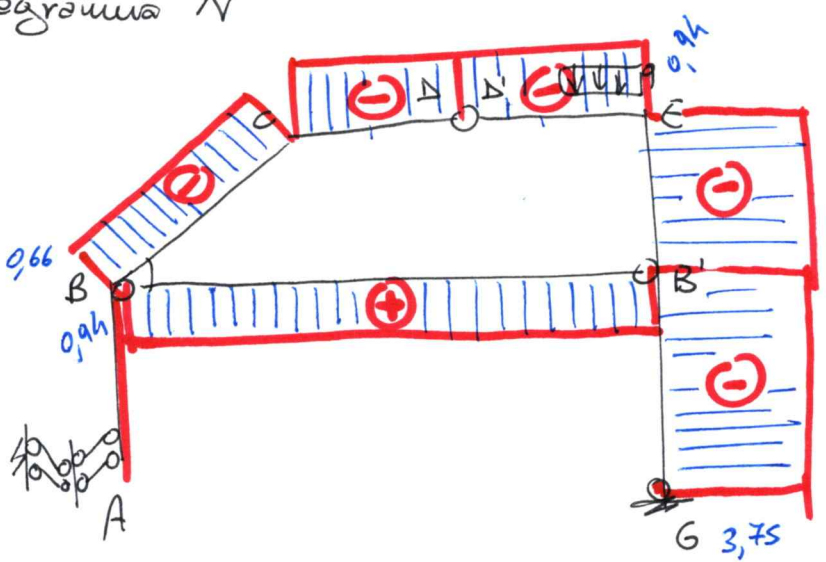
$$R_B = \left[q \frac{l}{2} \left(\frac{l}{4} + \frac{l}{2} \right) - 3,75 l \right] \cdot \frac{2}{h} = -0,94 \text{ KN} = R_B$$



$R_{Gy} = 3,75 \text{ kN}$
 $R_B = 0,94 \text{ kN}$
 $R_{Dz} = 0,94 \text{ kN}$
 $M_A = 2,82 \text{ kNm}$

Диаграмма N

← ⊠ →



$N_{AB} = 0$

$N_B^D = -R_B \frac{\sqrt{2}}{2} = -0,66 \text{ kN}$

$N_C^D = -R_B = -0,94 \text{ kN}$

$N_D = -0,94 \text{ kN}$

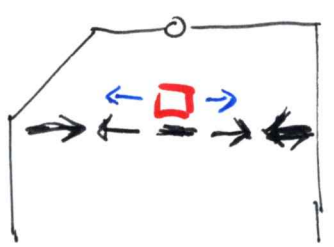
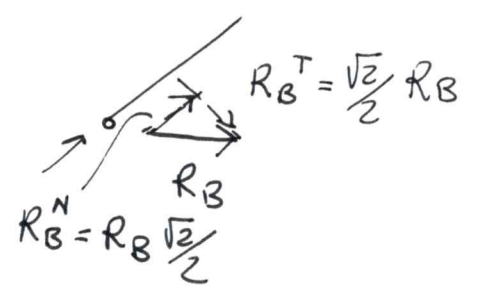
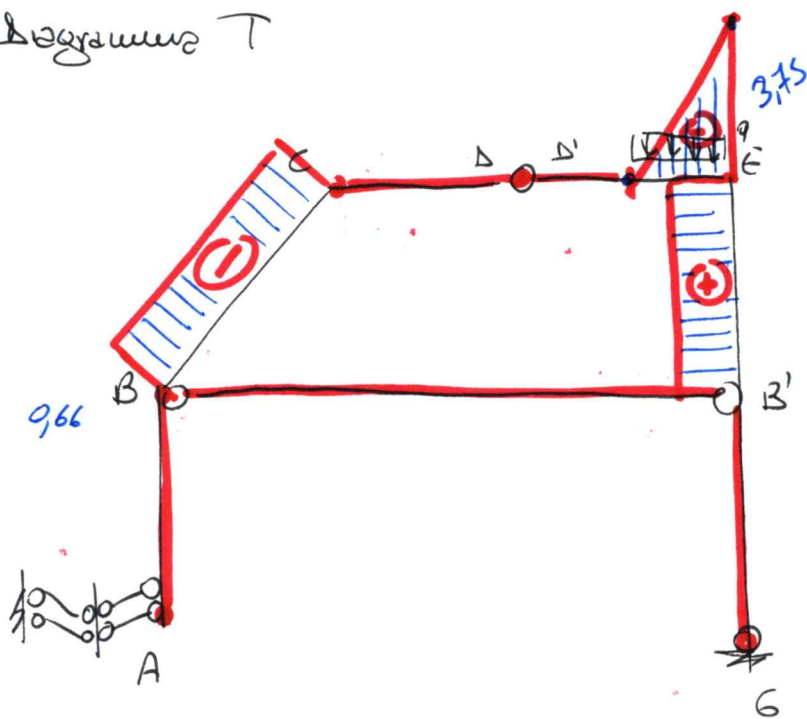


Diagramma T



↑ ⊕ ↓

③

$$T_B^D = -R_B \frac{\sqrt{2}}{2} = -0,66 \text{ kN}$$

$$T_C^D = 0$$

$$T_E^S = -q \frac{l}{2} - 3,75 \text{ kN}$$

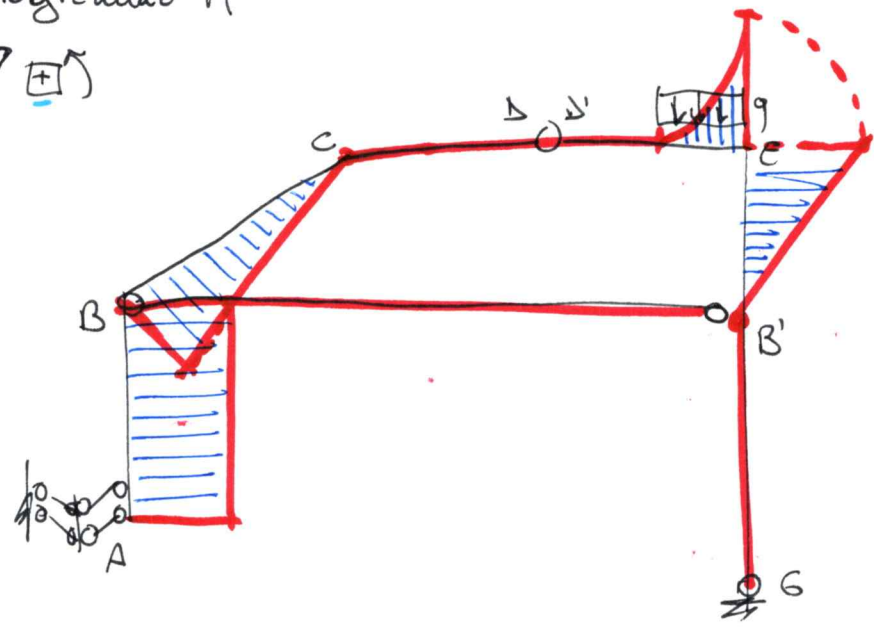
$$\frac{dT}{dx} + q = 0 \quad T = qx + \text{const}$$

↑
lineare.

$$T_{B'E} = R_B = 0,94 \text{ kN}$$

Diagramma M

⊕ ↗



$$\frac{dM}{dx} - T + q \cdot x = 0$$

$$\frac{dM}{dx} = 0 \Rightarrow M = \text{const}$$

~~$$\frac{dM}{dx} = 0 \Rightarrow M = \text{const}$$~~

$$\frac{dM}{dx} - T = 0$$

~~M = const~~

$$M = T \cdot x + \text{const}$$

$$M_C^S = M_A - R_B \cdot \frac{l}{2} = 2,82 - 2,82 = 0$$

$$M_E = -q \frac{l}{2} \cdot \frac{l}{4} = -\frac{q l^2}{8} = -2,82 \text{ kNm}$$