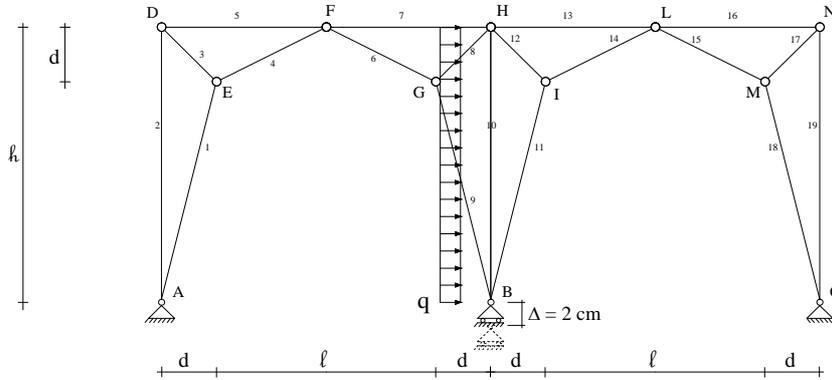


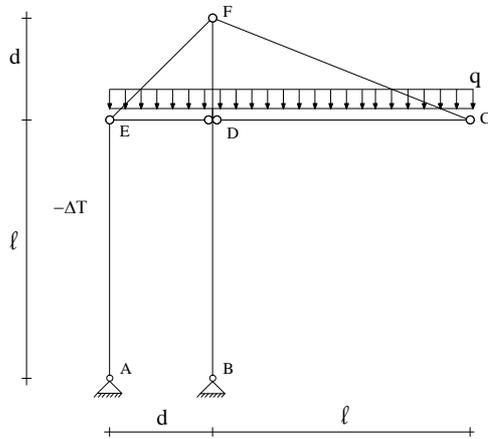
Prova Totale di Scienza delle Costruzioni I
10/01/2014



Dati:

$$\begin{aligned} \ell &= 3\text{ m} & h &= 7\text{ m} \\ d &= 1\text{ m} & q &= 10\text{ kN/m} \end{aligned}$$

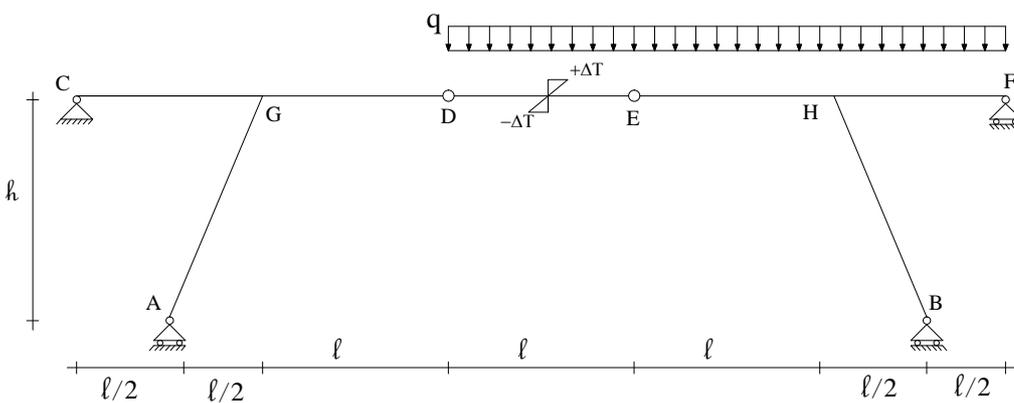
- Calcolare e disegnare le azioni interne N, T, M ;
- Calcolare lo spostamento orizzontale del nodo B in presenza del cedimento $\Delta = 2\text{ cm}$, considerare la deformabilità assiale



Dati:

$$\begin{aligned} \ell &= 5\text{ m} & \alpha &= 1,2 \times 10^{-5} \text{ } ^\circ\text{C}^{-1} \\ d &= 1\text{ m} & \Delta T &= 50^\circ \\ q &= 20\text{ kN/m} \end{aligned}$$

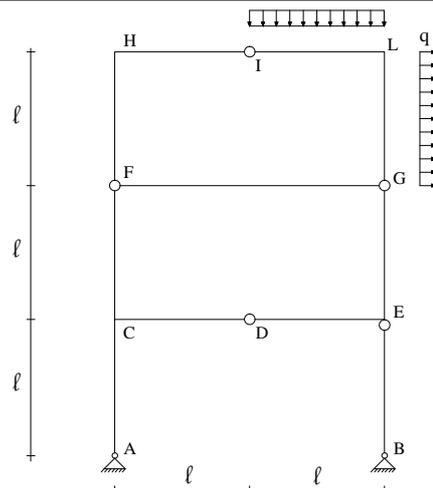
- Calcolare e disegnare le azioni interne N, T, M ;
- Calcolare lo spostamento verticale del nodo C considerando la presenza del carico termico $-\Delta T$, considerare la deformabilità assiale



Dati:

$$\begin{aligned} \ell &= 10\text{ m} & \alpha &= 1,2 \times 10^{-5} \text{ } ^\circ\text{C}^{-1} \\ h &= 12\text{ m} & \Delta T &= 50^\circ \\ q &= 40\text{ kN/m} \end{aligned}$$

- Calcolare e disegnare le azioni interne N, T, M ;
- Calcolare la rotazione relativa $\Delta\varphi_D$ trascurando la deformabilità assiale delle travi e considerando il carico termico su tutto il tratto CF

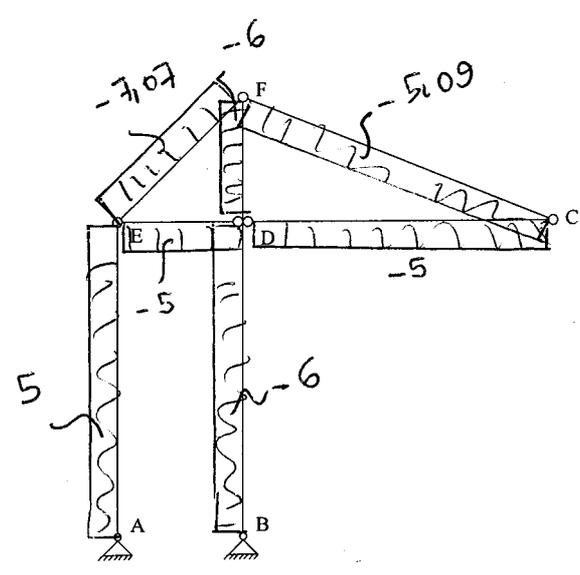
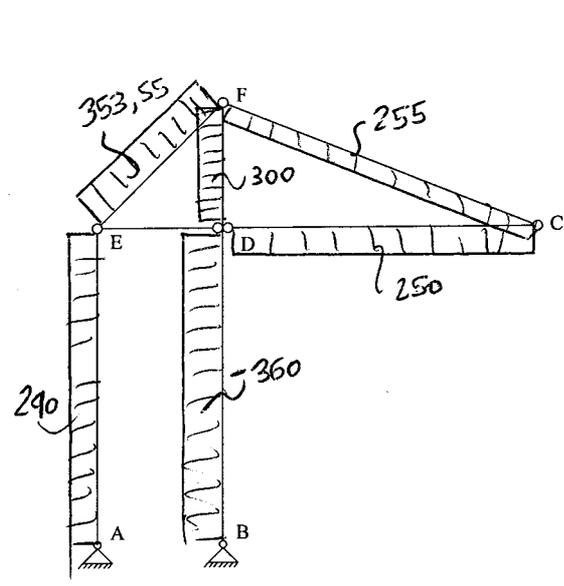
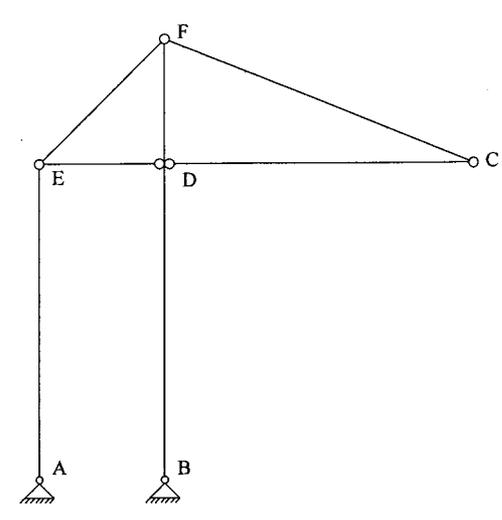
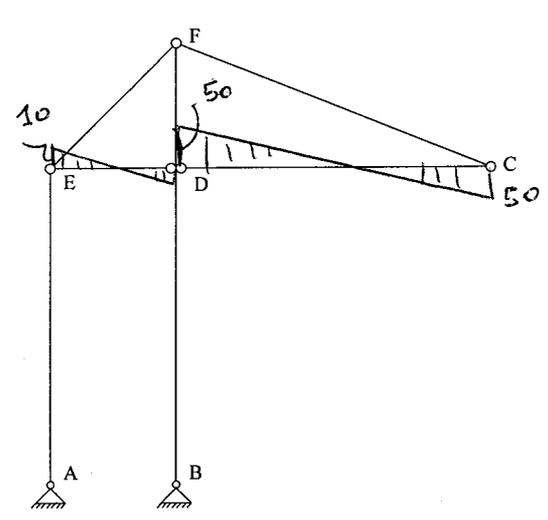
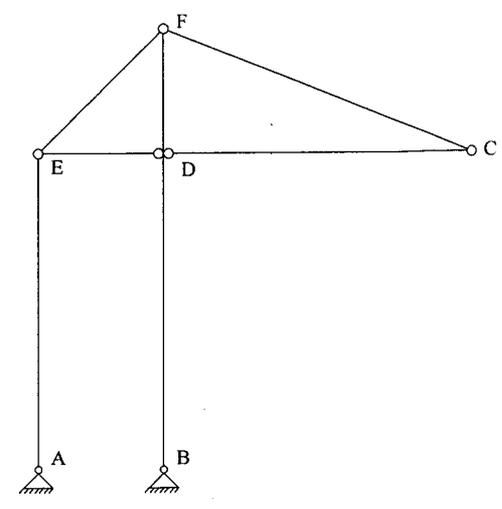
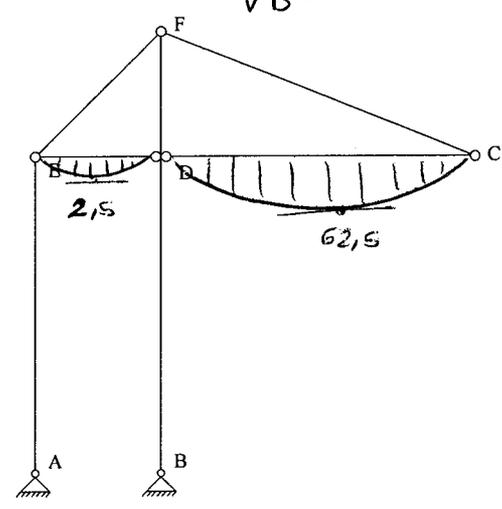


Dati:

$$\begin{aligned} \ell &= 3\text{ m} \\ q &= 20\text{ kN/m} \end{aligned}$$

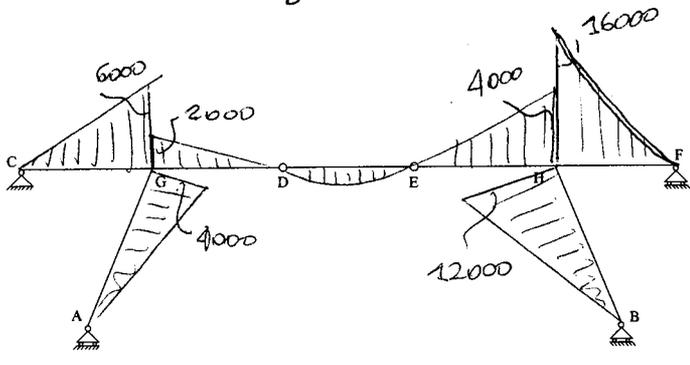
- Calcolare e disegnare le azioni interne N, T, M ;

$V_A = -240$
 $V_B = 360$

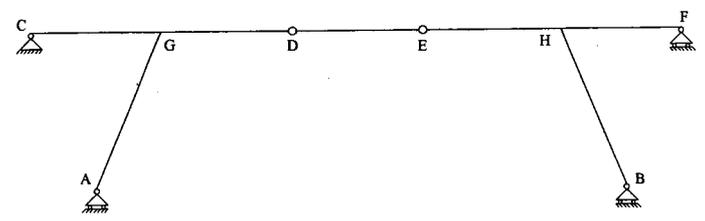
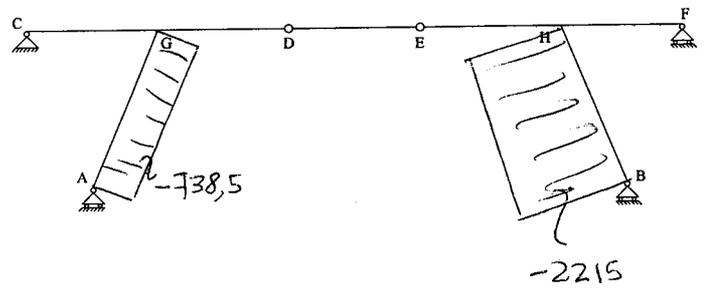
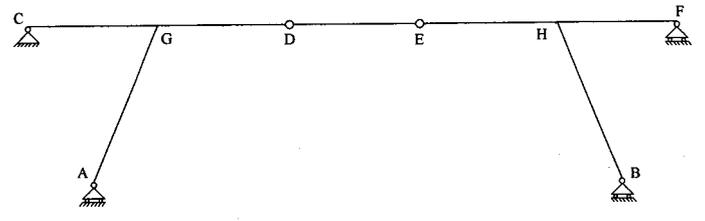
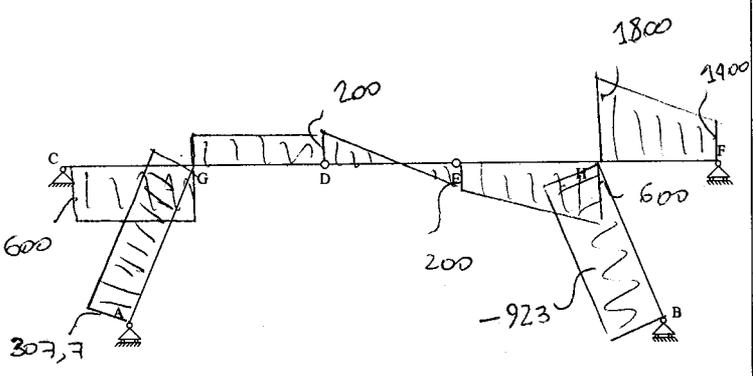
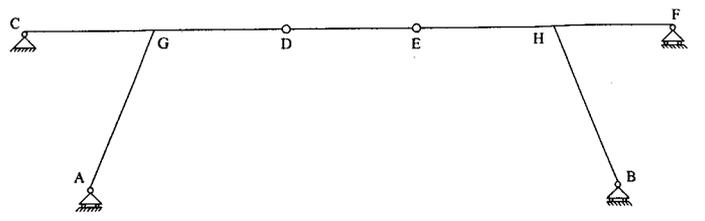


Esercizio 3 FILAC

$V_A = 800$ $V_e = -600$
 $V_B = 2400$ $V_F = -1400$



SOLLECITAZIONI SISTEMA VIRTUALE
ANALOGO ALLA FILA D



ESERCIZIO 4 FILAC

$V_B = 120$

$V_A = -60$

$H_A = -60$

