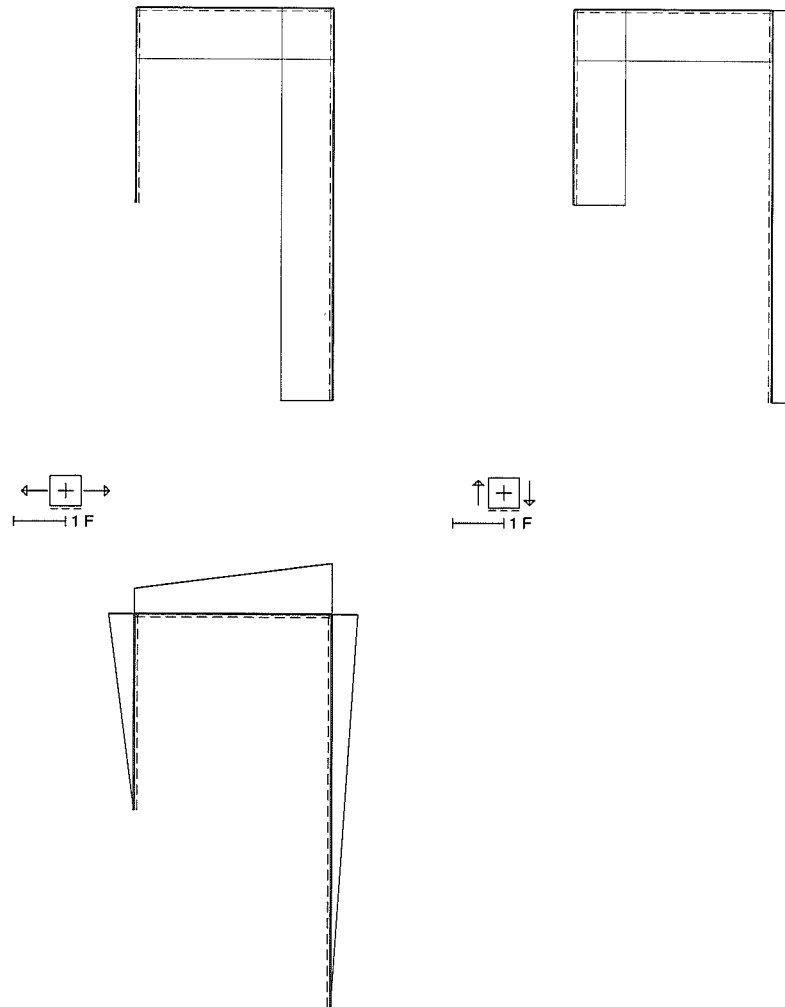


$$H_D = F \quad W_B = -W = -Fb \quad x_{CB}$$

$$V_C = -F \quad x_{DC} \quad x_{BA}$$

Verso effettivo dei carichi riportato nel disegno.
 Calcolare reazioni vincolari della struttura e delle aste.
 Tracciare i diagrammi delle azioni interne nelle aste.
 Esprimere le funzioni delle azioni interne nelle aste.
 J_{AB} x_{AB} ϑ_{AB} riferimento locale asta AB con origine in A.

MANTENERE I RISULTATI IN FORMA FRAZIONARIA



$$\text{---} \boxed{+} \text{---} \rightarrow -2 Fb$$

REAZIONI

$$H_A = -1/2F$$

$$V_A = F$$

$$H_B = -1/2F$$

$$H_{DC} = F$$

$$V_{DC} = 0$$

$$W_{DC} = 0$$

$$H_{CD} = -F$$

$$V_{CD} = 0$$

$$W_{CD} = -Fb$$

$$H_{CB} = F$$

$$V_{CB} = -F$$

$$W_{CB} = Fb$$

$$H_{BC} = -F$$

$$V_{BC} = F$$

$$W_{BC} = -2Fb$$

$$H_{BA} = 1/2F$$

$$V_{BA} = -F$$

$$W_{BA} = Fb$$

$$H_{AB} = -1/2F$$

$$V_{AB} = F$$

$$W_{AB} = 0$$

AZIONI INTERNE (coordinate locali)

$$N_{DC} = 0$$

$$T_{DC} = -F$$

$$M_{DC} = -Fx$$

$$N_{CB} = -F$$

$$T_{CB} = -F$$

$$M_{CB} = -Fb - Fx$$

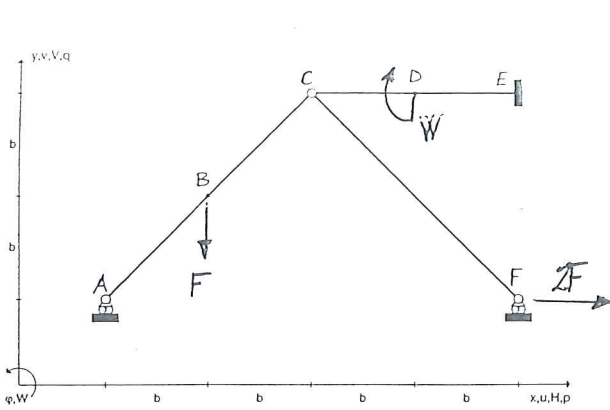
$$N_{BA} = -F$$

$$T_{BA} = 1/2F$$

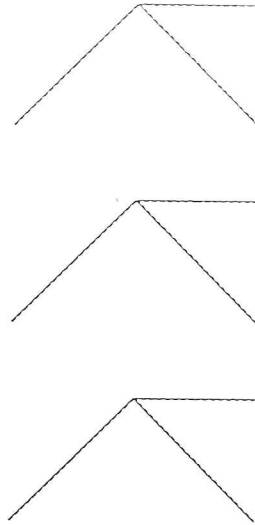
$$M_{BA} = -Fb + 1/2Fx$$

Esercizio n.1 (9 punti)

Risolvere la struttura presentata in Figura e riportare in grafico e per iscritto le azioni interne nei tratti indicati.



$W = Fb$



$\leftarrow \boxed{+} \rightarrow N$

$\boxed{+} \downarrow T$

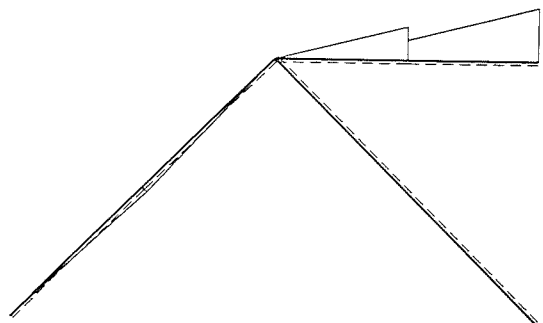
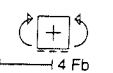
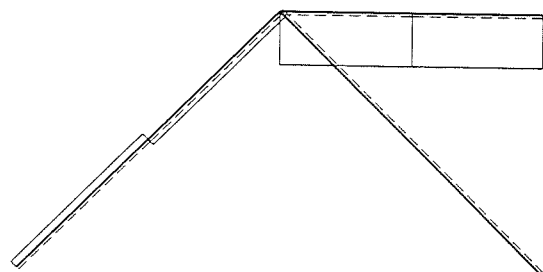
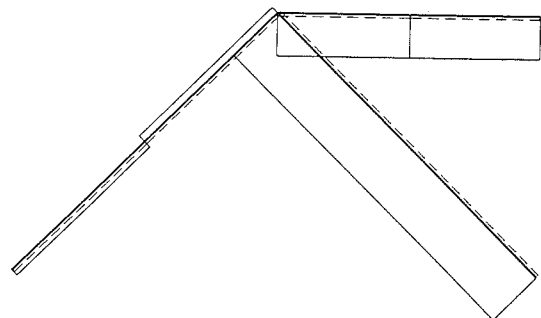
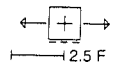
$\left(\boxed{+} \right) M$

$V_A = \dots\dots\dots; V_F = \dots\dots\dots; M_E = \dots\dots\dots; V_E = \dots\dots\dots;$
 $N_{AB} = \dots\dots\dots; N_{BC} = \dots\dots\dots; N_{CE} = \dots\dots\dots; N_{CF} = \dots\dots\dots;$
 $T_{BC} = \dots\dots\dots; T_{CD} = \dots\dots\dots; T_{CF} = \dots\dots\dots;$
 $M_{CF} = \dots\dots\dots; M_{ED} = \dots\dots\dots; M_{DC} = \dots\dots\dots$

1/1

DIAGRAMMI AZIONI INTERNE

TePCS2 14.11.02*009



RISULTATI NUMERICI

TePCS2 14.11.02*009

AZIONI INTERNE (coordinate locali)

$$N_{AB} = -\sqrt{2}/4F$$

$$T_{AB} = \sqrt{2}/4F$$

$$M_{AB} = \sqrt{2}/4Fx$$

$$N_{BC} = \sqrt{2}/4F$$

$$T_{BC} = -\sqrt{2}/4F$$

$$M_{BC} = 1/2Fb - \sqrt{2}/4Fx$$

$$N_{CD} = -2F$$

$$T_{CD} = -5/2F$$

$$M_{CD} = -5/2Fx$$

$$N_{DE} = -2F$$

$$T_{DE} = -5/2F$$

$$M_{DE} = -3/2Fb - 5/2Fx$$

$$N_{FC} = 2\sqrt{2}F$$

$$T_{FC} = 0$$

$$M_{FC} = 0$$