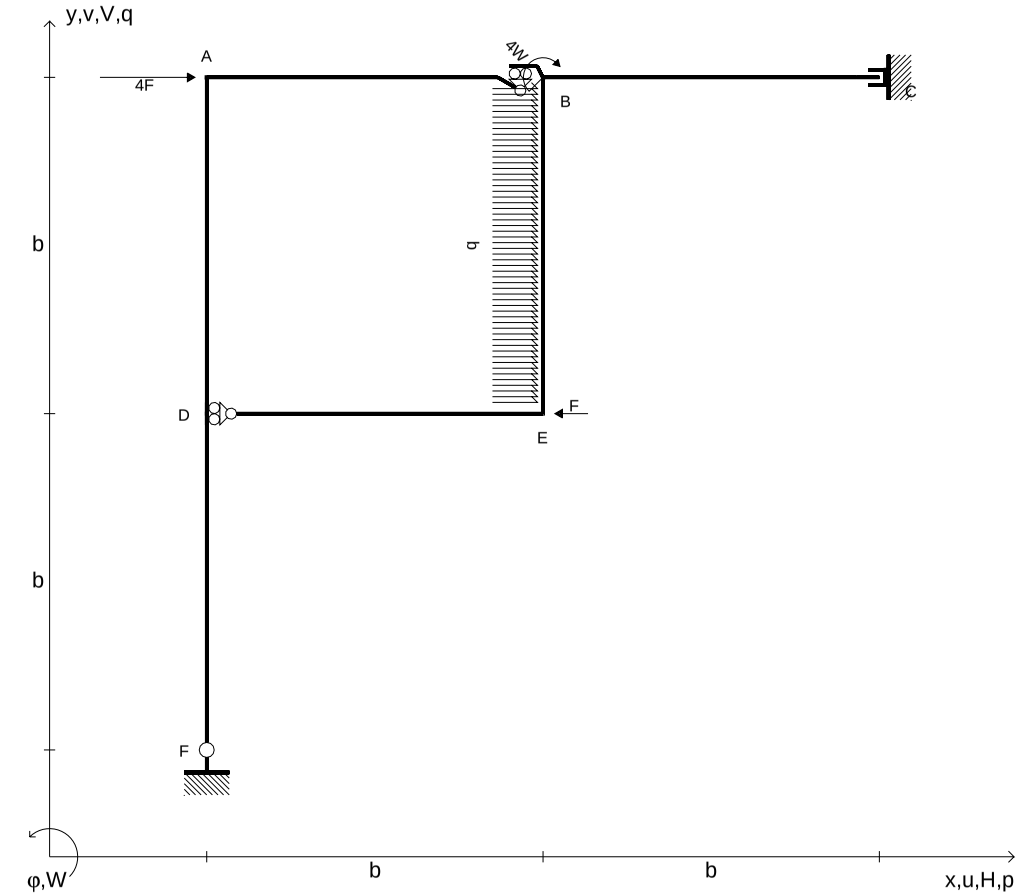
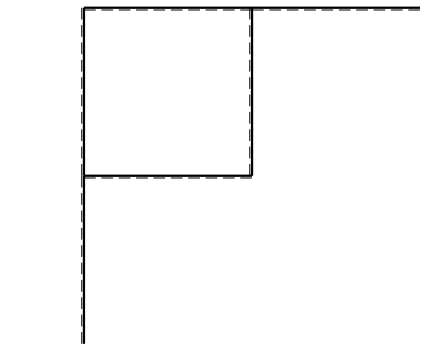
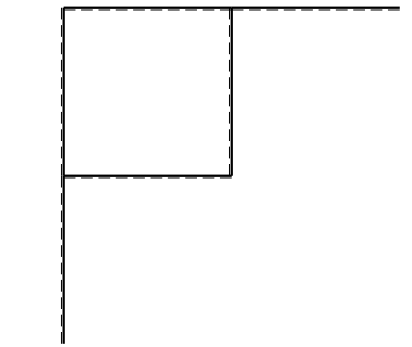
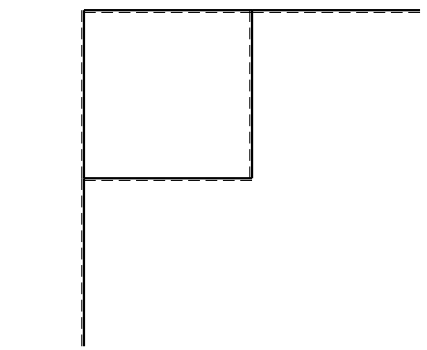


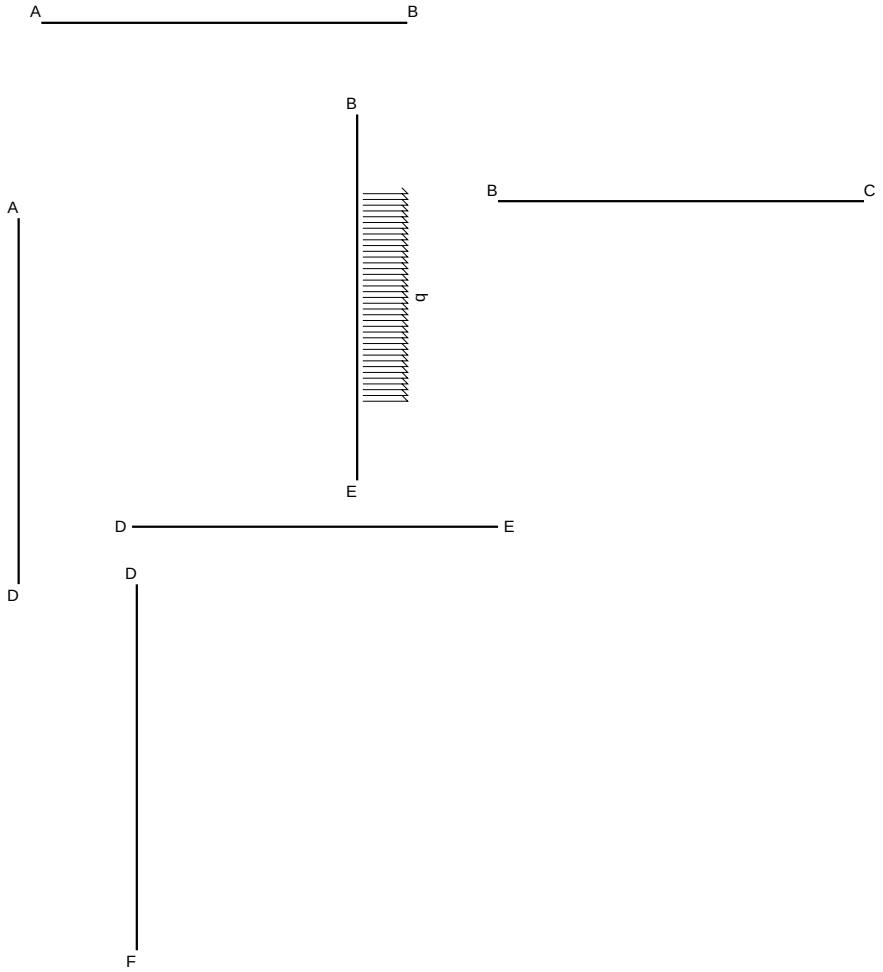
$H_A = 4F$ $H_E = -F$ $W_B = -4W = -4Fb$ $p_{BE} = q = F/b$

Svolgere l'analisi cinematica.
Determinare matrice di congruenza e di equilibrio.
Determinare le reazioni vincolari a terra col PLV (Le=0).
Determinare le azioni interne in B col PLV (Le=0).
Carichi e deformazioni date hanno verso efficace in disegno.
Calcolare reazioni vincolari della struttura e delle aste.
Tracciare i diagrammi delle azioni interne nelle aste.









REAZIONI

V_C =
W_C =

H_F =
V_F =

H_{AB} =
V_{AB} =
W_{AB} =
H_{BA} =
V_{BA} =
W_{BA} =

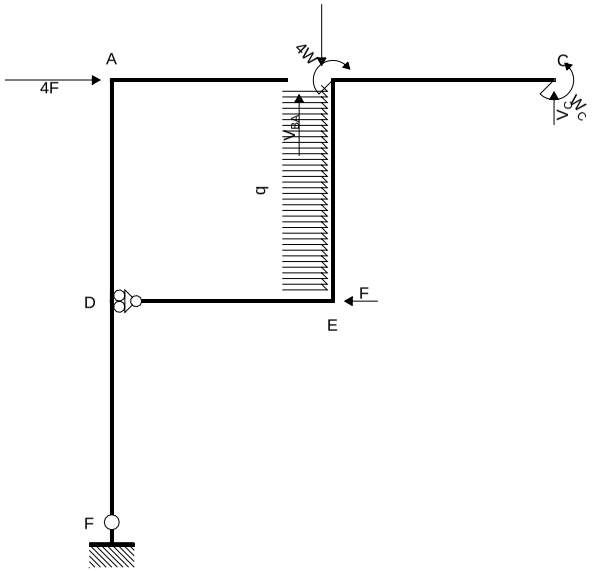
H_{BC} =
V_{BC} =
W_{BC} =
H_{CB} =
V_{CB} =
W_{CB} =

H_{DE} =
V_{DE} =
W_{DE} =
H_{ED} =
V_{ED} =
W_{ED} =

H_{AD} =
V_{AD} =
W_{AD} =
H_{DA} =
V_{DA} =
W_{DA} =

H_{DF} =
V_{DF} =
W_{DF} =
H_{FD} =
V_{FD} =
W_{FD} =

H_{BE} =
V_{BE} =
W_{BE} =
H_{EB} =
V_{EB} =
W_{EB} =



EQUAZIONI DI EQUILIBRIO

Rotazione globale intorno a F

$2V_Cb + W_C = 7Fb + 4W + 3/2qb^2$

Traslazione verticale: aste DE EB BC

$V_C - V_{BA} = 0$

Rotazione intorno a D: aste DE EB BC

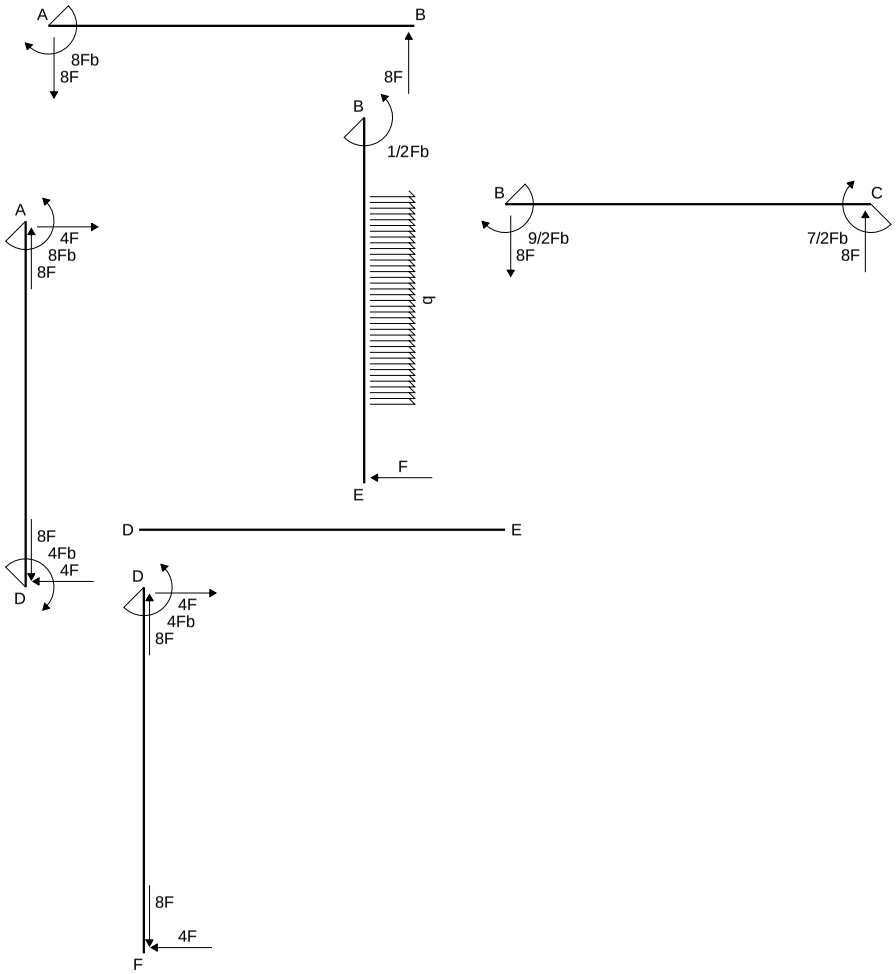
$2V_Cb + W_C - V_{BA}b = 4W + 1/2qb^2$

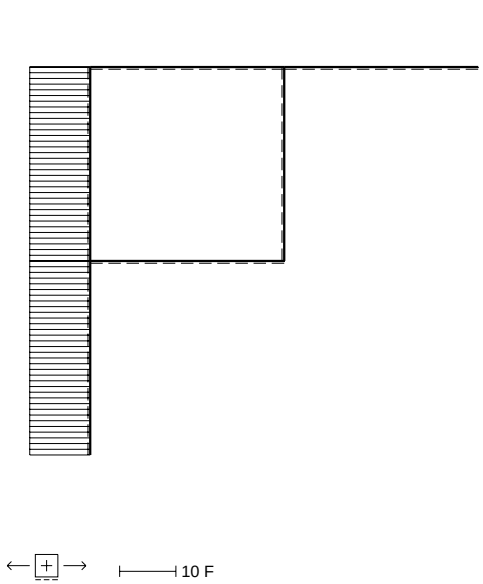
Matrice di equilibrio

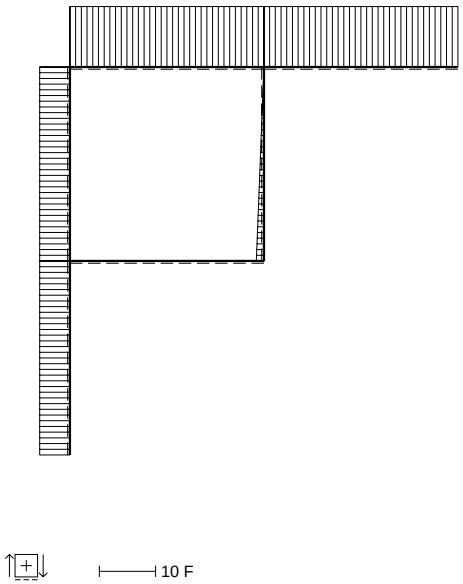
$$\begin{array}{c} \\ \varphi_F \\ v_{DE} \\ \varphi_{DE} \end{array} \begin{bmatrix} V_Cb & W_C & V_{BA}b \\ 2 & 1 & 0 \\ 1 & 0 & -1 \\ 2 & 1 & -1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 7 & 4 & 3/2 \\ 0 & 0 & 0 \\ 0 & 4 & 1/2 \end{bmatrix}$$

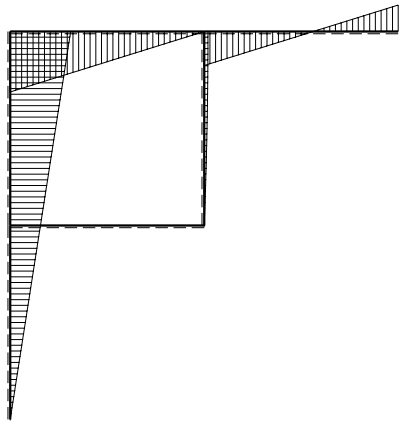
Soluzione del sistema

$$\begin{bmatrix} V_Cb \\ W_C \\ V_{BA}b \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 7 & 0 & 1 \\ -7 & 4 & -1/2 \\ 7 & 0 & 1 \end{bmatrix}$$









REAZIONI

$V_C = 7F + qb = 8F$
$W_C = -7Fb + 4W - 1/2qb^2 = -7/2Fb$

$H_F = -3F - qb = -4F$
$V_F = -7F - qb = -8F$

$H_{AB} = 0$
$V_{AB} = -7F - qb = -8F$
$W_{AB} = -7Fb - qb^2 = -8Fb$
$H_{BA} = 0$
$V_{BA} = 7F + qb = 8F$
$W_{BA} = 0$

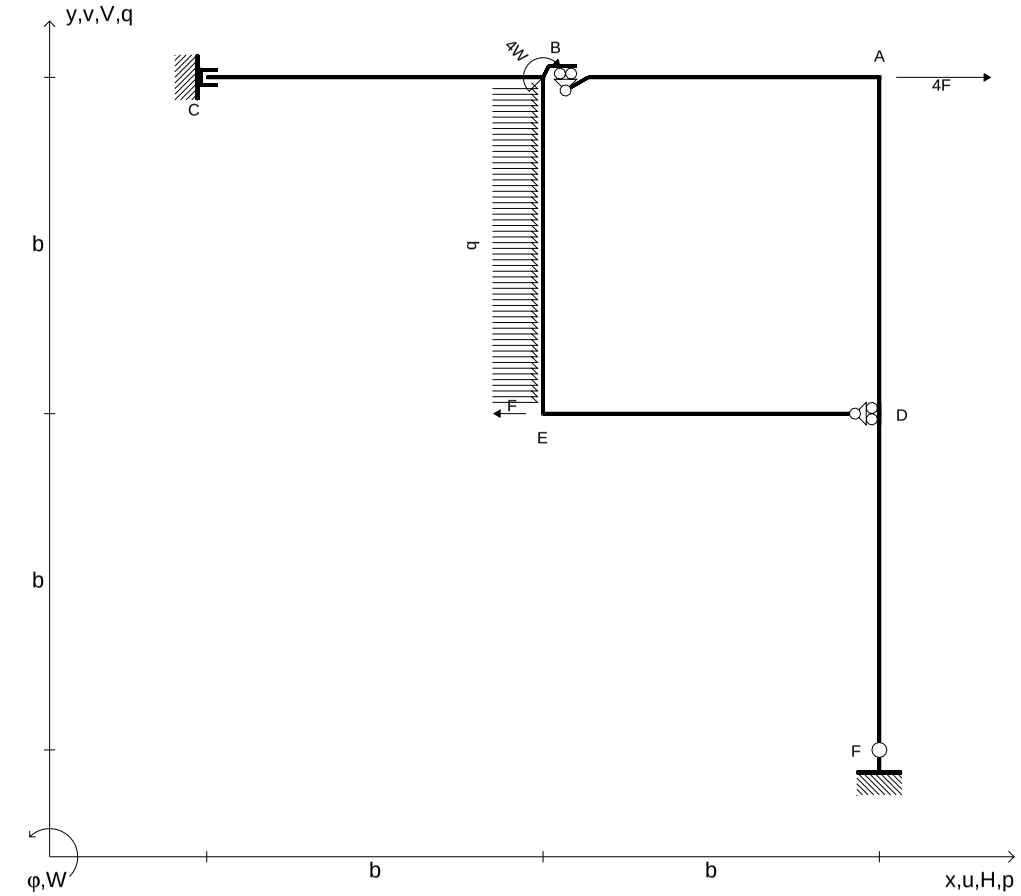
$H_{BC} = 0$
$V_{BC} = -7F - qb = -8F$
$W_{BC} = -4W - 1/2qb^2 = -9/2Fb$
$H_{CB} = 0$
$V_{CB} = 7F + qb = 8F$
$W_{CB} = -7Fb + 4W - 1/2qb^2 = -7/2Fb$

$H_{DE} = F - qb = 0$
$V_{DE} = 0$
$W_{DE} = 0$
$H_{ED} = -F + qb = 0$
$V_{ED} = 0$
$W_{ED} = 0$

$H_{AD} = 4F = 4F$
$V_{AD} = 7F + qb = 8F$
$W_{AD} = 7Fb + qb^2 = 8Fb$
$H_{DA} = -4F = -4F$
$V_{DA} = -7F - qb = -8F$
$W_{DA} = -3Fb - qb^2 = -4Fb$

$H_{DF} = 3F + qb = 4F$
$V_{DF} = 7F + qb = 8F$
$W_{DF} = 3Fb + qb^2 = 4Fb$
$H_{FD} = -3F - qb = -4F$
$V_{FD} = -7F - qb = -8F$
$W_{FD} = 0$

$H_{BE} = 0$
$V_{BE} = 0$
$W_{BE} = 1/2qb^2 = 1/2Fb$
$H_{EB} = -qb = -F$
$V_{EB} = 0$
$W_{EB} = 0$



$H_A = 4F$ $H_E = -F$ $W_B = -4W = -4Fb$ $p_{BE} = q = F/b$

Svolgere l'analisi cinematica.
Determinare matrice di congruenza e di equilibrio.
Determinare le reazioni vincolari a terra col PLV (Le=0).
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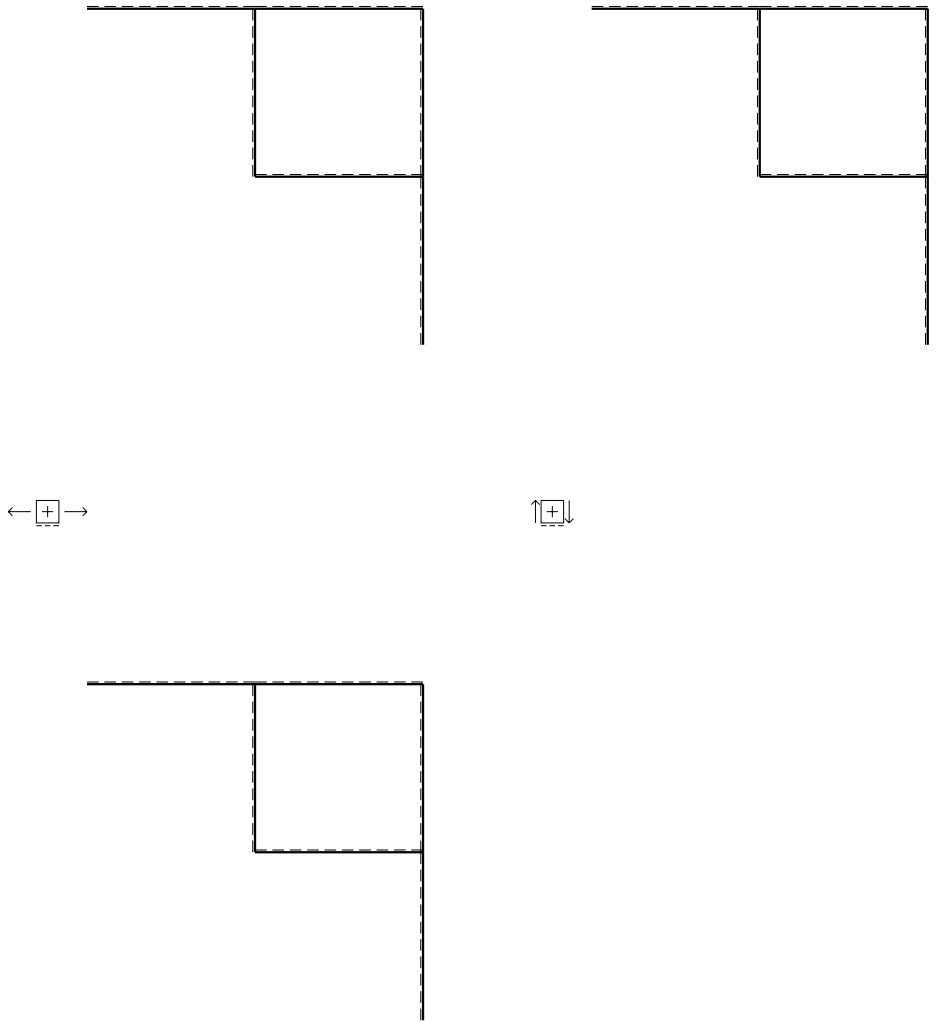
Tracciare i diagrammi delle azioni interne nelle aste.



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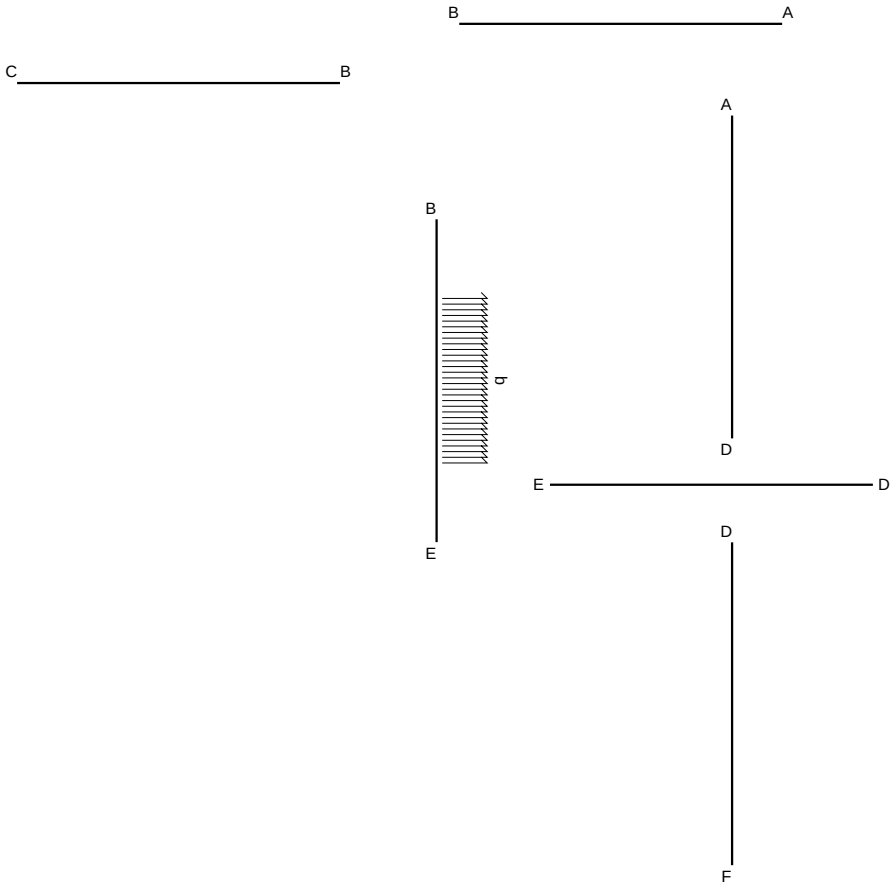

REAZIONI

V_C =
W_C =

H_F =
V_F =

H_{AB} =
V_{AB} =
W_{AB} =
H_{BA} =
V_{BA} =
W_{BA} =

H_{BC} =
V_{BC} =
W_{BC} =
H_{CB} =
V_{CB} =
W_{CB} =

H_{DE} =
V_{DE} =
W_{DE} =
H_{ED} =
V_{ED} =
W_{ED} =

H_{AD} =
V_{AD} =
W_{AD} =
H_{DA} =
V_{DA} =
W_{DA} =

H_{DF} =
V_{DF} =
W_{DF} =
H_{FD} =
V_{FD} =
W_{FD} =

H_{BE} =
V_{BE} =
W_{BE} =
H_{EB} =
V_{EB} =
W_{EB} =

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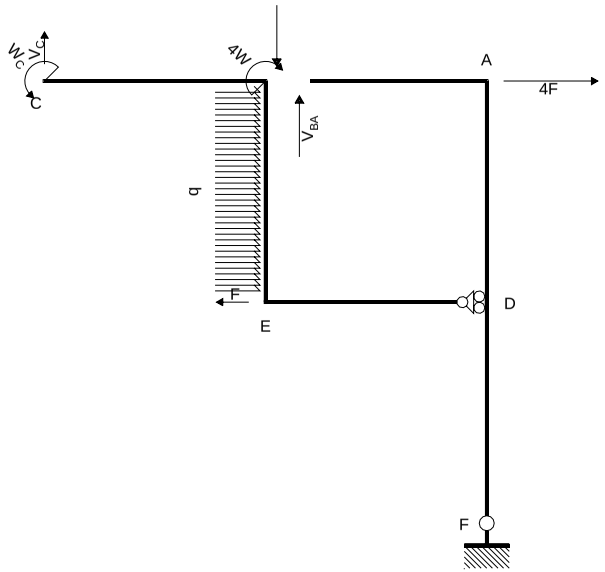


EQUAZIONI DI EQUILIBRIO

Rotazione globale intorno a F

$-2V_C b + W_C = 7Fb + 4W + 3/2qb^2$

Traslazione verticale: aste DE EB BC

$V_C - V_{BA} = 0$

Rotazione intorno a D: aste DE EB BC

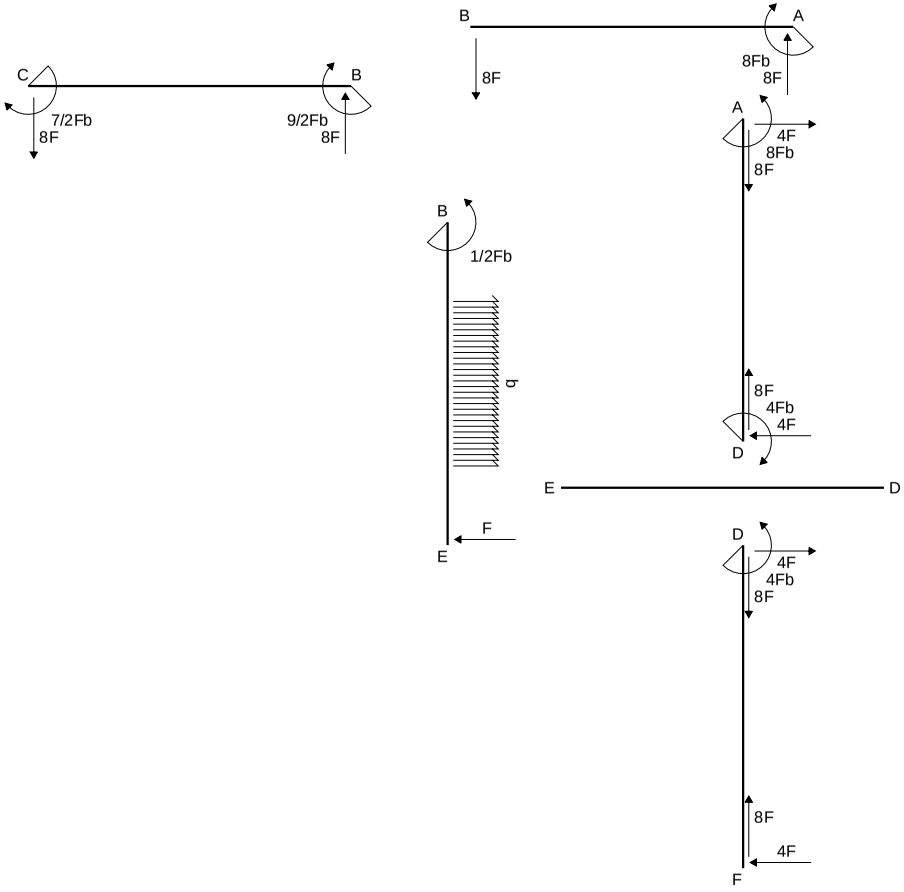
$-2V_C b + W_C + V_{BA} b = 4W + 1/2qb^2$

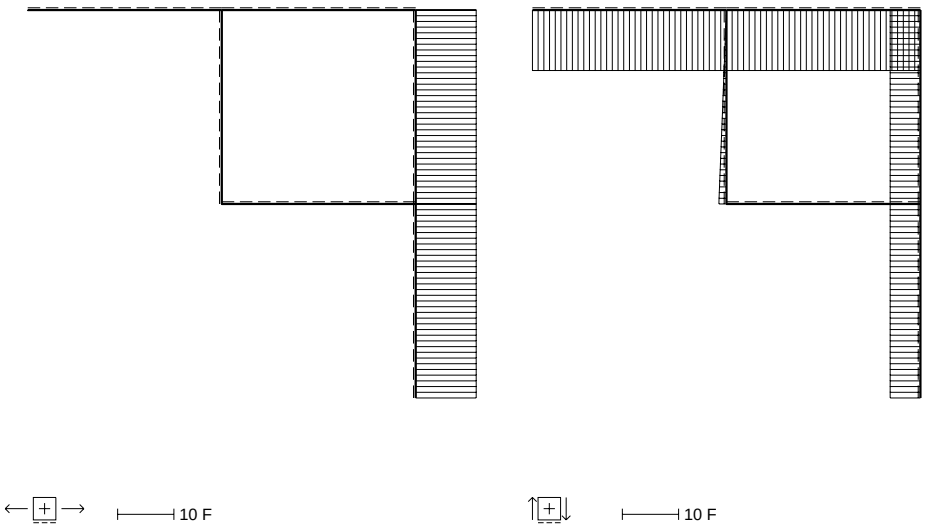
Matrice di equilibrio

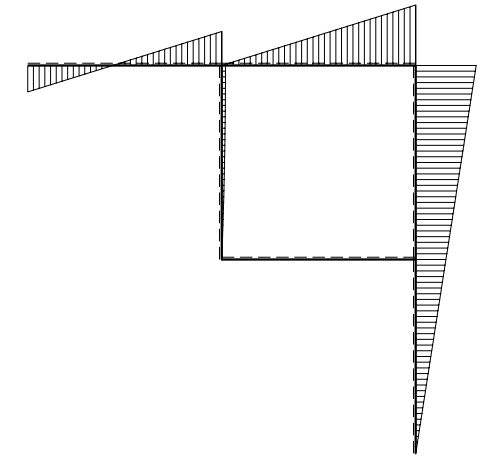
$$\begin{array}{c} \\ \varphi_F \\ v_{DE} \\ \varphi_{DE} \end{array} \begin{bmatrix} V_C b & W_C & V_{BA} b \\ -2 & 1 & 0 \\ 1 & 0 & -1 \\ -2 & 1 & 1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 7 & 4 & 3/2 \\ 0 & 0 & 0 \\ 0 & 4 & 1/2 \end{bmatrix}$$

Soluzione del sistema

$$\begin{bmatrix} V_C b \\ W_C \\ V_{BA} b \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ -7 & 0 & -1 \\ -7 & 4 & -1/2 \\ -7 & 0 & -1 \end{bmatrix}$$







REAZIONI

$V_C = -7F -qb = -8F$
$W_C = -7Fb +4W -1/2qb^2 = -7/2Fb$

$H_F = -3F -qb = -4F$
$V_F = 7F +qb = 8F$

$H_{AB} = 0$
$V_{AB} = 7F +qb = 8F$
$W_{AB} = -7Fb -qb^2 = -8Fb$
$H_{BA} = 0$
$V_{BA} = -7F -qb = -8F$
$W_{BA} = 0$

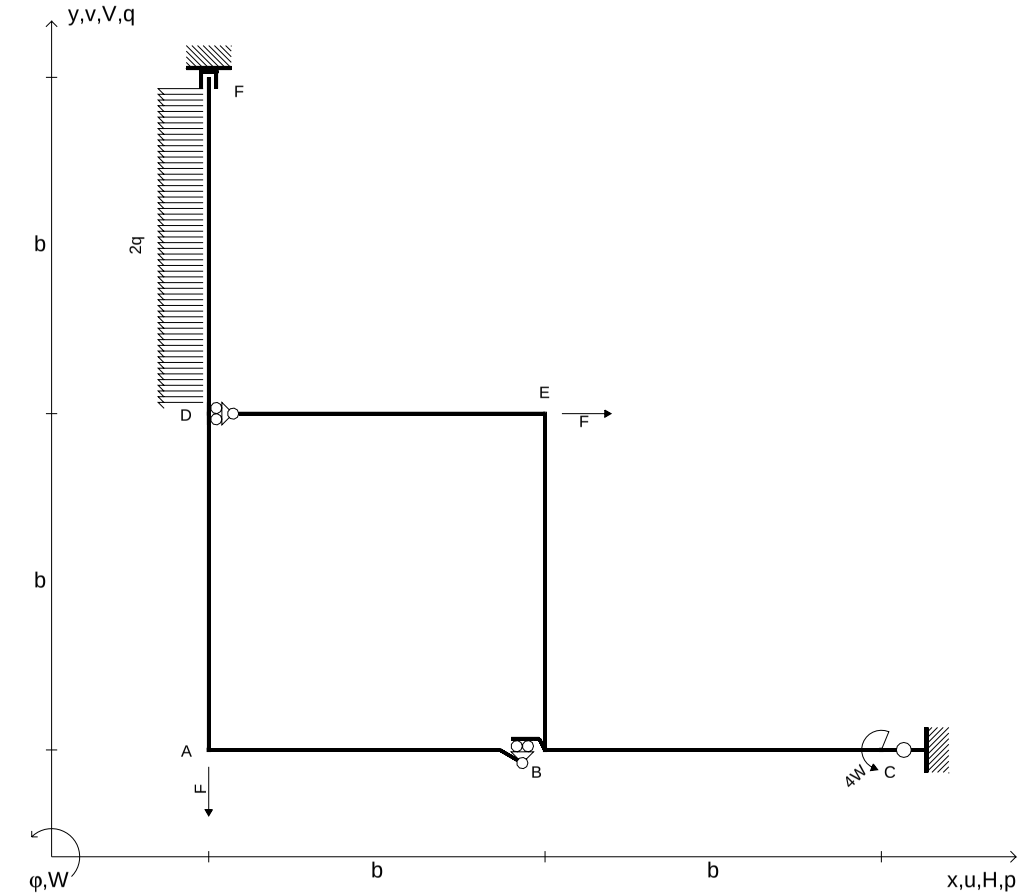
$H_{BC} = 0$
$V_{BC} = 7F +qb = 8F$
$W_{BC} = -4W -1/2qb^2 = -9/2Fb$
$H_{CB} = 0$
$V_{CB} = -7F -qb = -8F$
$W_{CB} = -7Fb +4W -1/2qb^2 = -7/2Fb$

$H_{DE} = F -qb = 0$
$V_{DE} = 0$
$W_{DE} = 0$
$H_{ED} = -F +qb = 0$
$V_{ED} = 0$
$W_{ED} = 0$

$H_{AD} = 4F = 4F$
$V_{AD} = -7F -qb = -8F$
$W_{AD} = 7Fb +qb^2 = 8Fb$
$H_{DA} = -4F = -4F$
$V_{DA} = 7F +qb = 8F$
$W_{DA} = -3Fb -qb^2 = -4Fb$

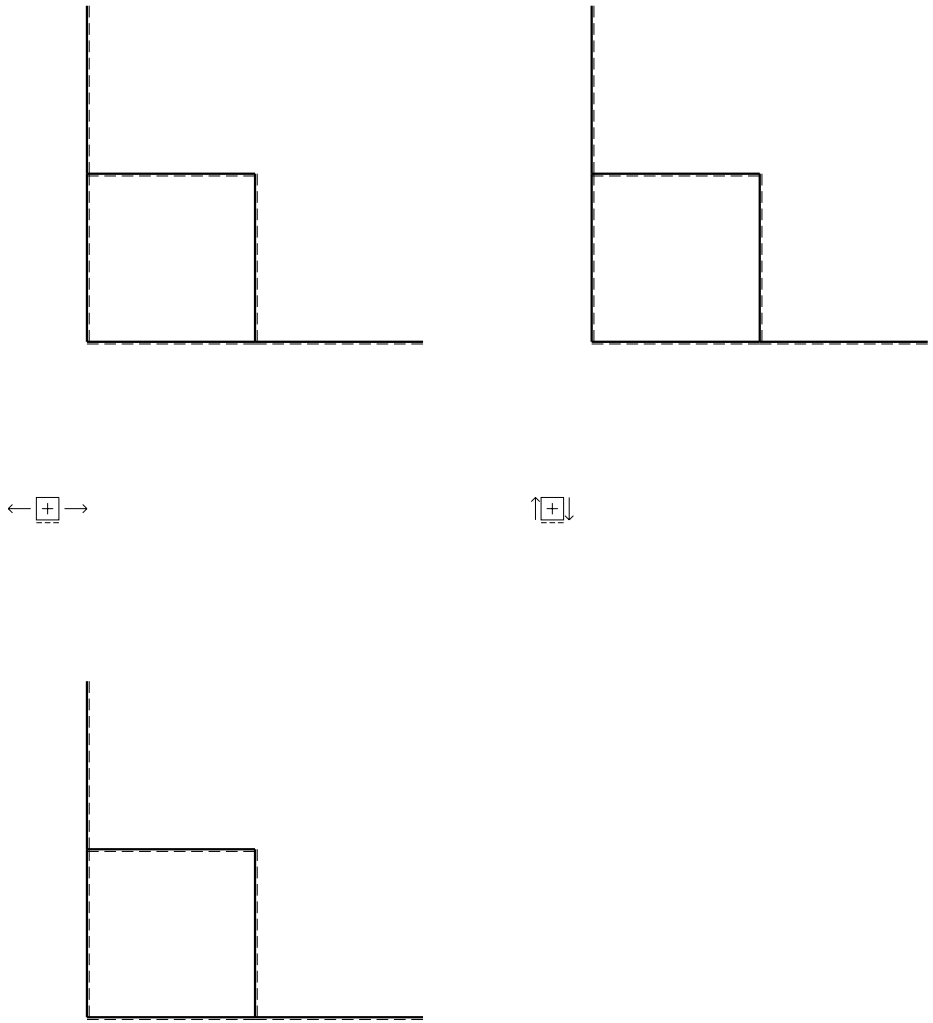
$H_{DF} = 3F +qb = 4F$
$V_{DF} = -7F -qb = -8F$
$W_{DF} = 3Fb +qb^2 = 4Fb$
$H_{FD} = -3F -qb = -4F$
$V_{FD} = 7F +qb = 8F$
$W_{FD} = 0$

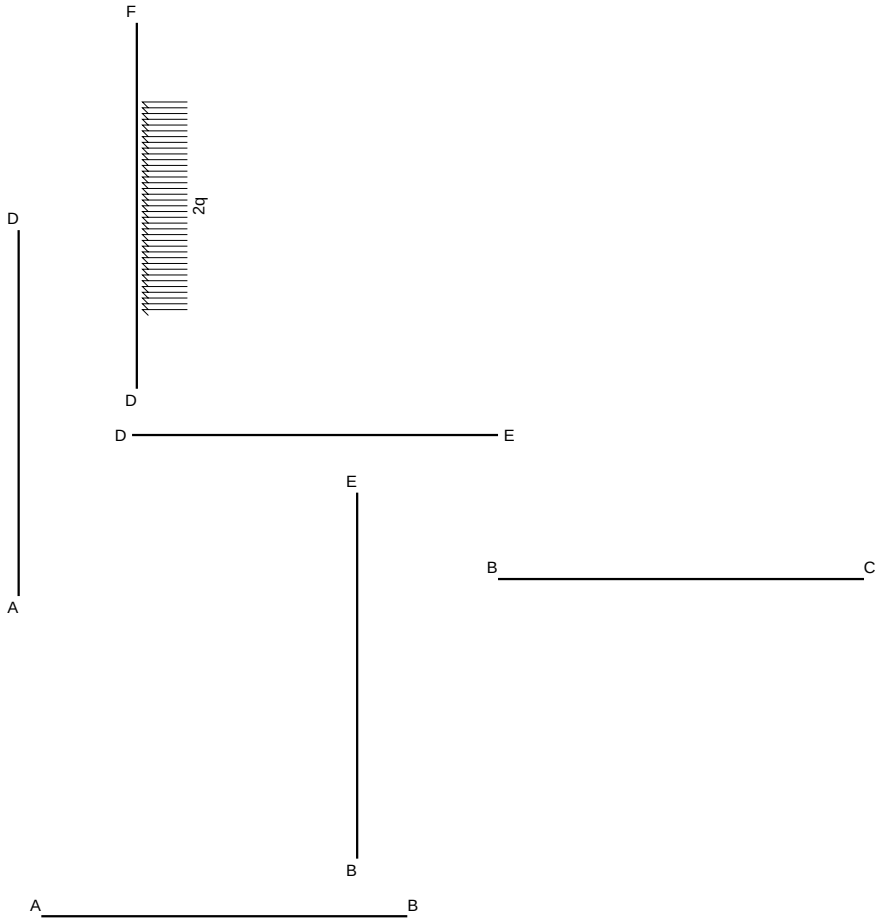
$H_{BE} = 0$
$V_{BE} = 0$
$W_{BE} = 1/2qb^2 = 1/2Fb$
$H_{EB} = -qb = -F$
$V_{EB} = 0$
$W_{EB} = 0$



$V_A = -F$ $H_E = F$ $W_C = 4W = 4Fb$ $p_{DF} = -2q = -2F/b$

Svolgere l'analisi cinematica.
Determinare matrice di congruenza e di equilibrio.
Determinare le reazioni vincolari a terra col PLV (Le=0).
Determinare le azioni interne in B col PLV (Le=0).
Carichi e deformazioni date hanno verso efficace in disegno.
Calcolare reazioni vincolari della struttura e delle aste.
Tracciare i diagrammi delle azioni interne nelle aste.





REAZIONI

H_C =
V_C =

H_F =
W_F =

H_{AB} =
V_{AB} =
W_{AB} =
H_{BA} =
V_{BA} =
W_{BA} =

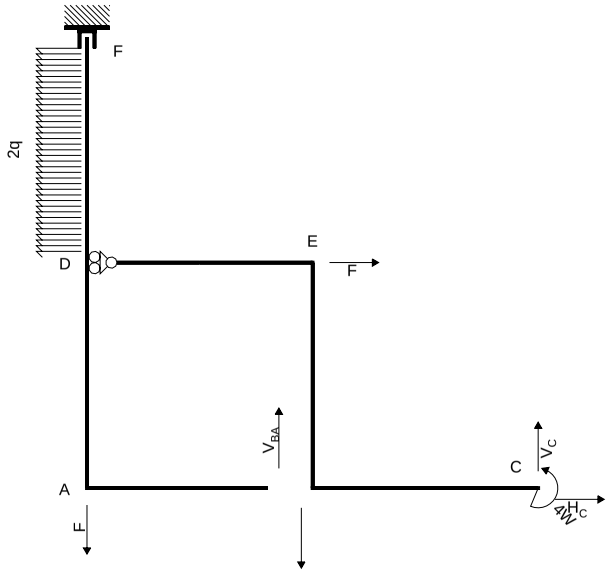
H_{BC} =
V_{BC} =
W_{BC} =
H_{CB} =
V_{CB} =
W_{CB} =

H_{DE} =
V_{DE} =
W_{DE} =
H_{ED} =
V_{ED} =
W_{ED} =

H_{AD} =
V_{AD} =
W_{AD} =
H_{DA} =
V_{DA} =
W_{DA} =

H_{DF} =
V_{DF} =
W_{DF} =
H_{FD} =
V_{FD} =
W_{FD} =

H_{BE} =
V_{BE} =
W_{BE} =
H_{EB} =
V_{EB} =
W_{EB} =



EQUAZIONI DI EQUILIBRIO

Traslazione verticale globale

$V_C = F$

Traslazione verticale: aste DE EB BC

$V_C - V_{BA} = 0$

Rotazione intorno a D: aste DE EB BC

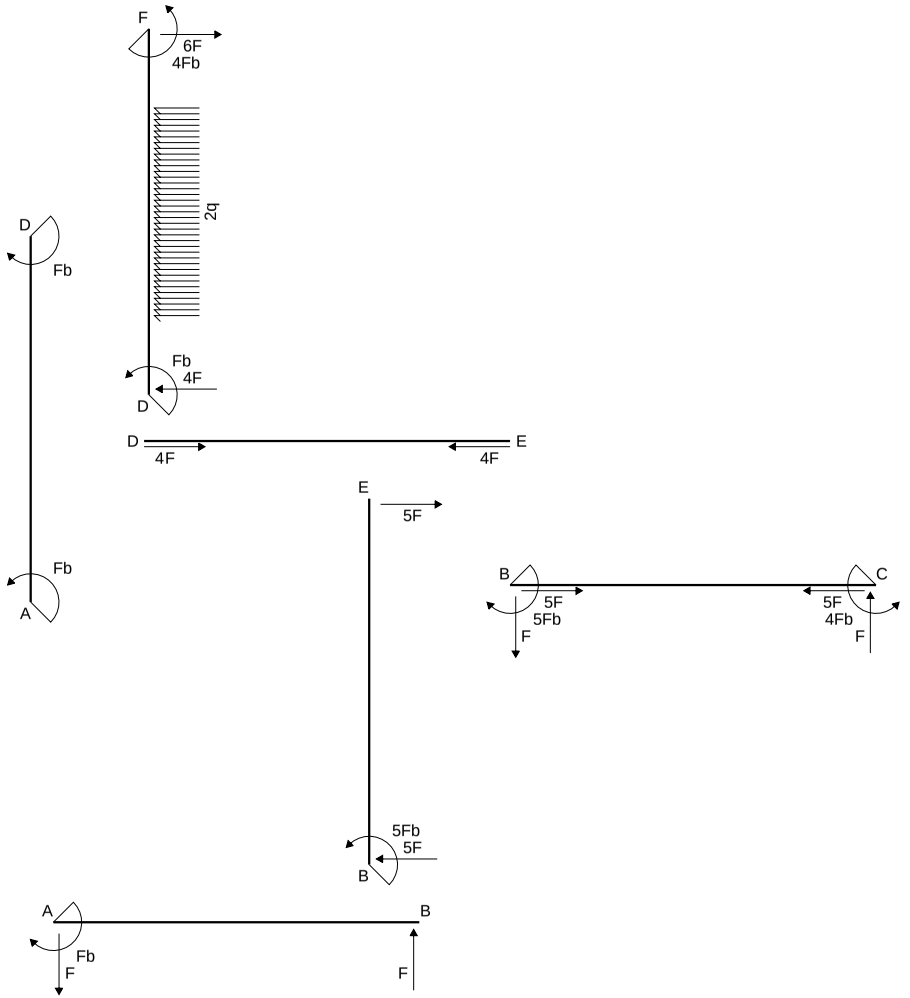
$H_C b + 2V_C b - V_{BA} b = -4W$

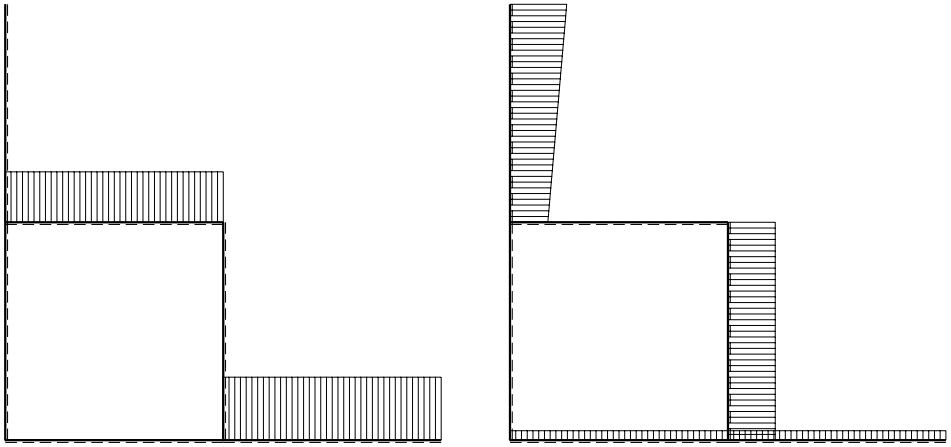
Matrice di equilibrio

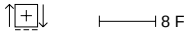
$$\begin{array}{c} \\ v_F \\ v_{DE} \\ \varphi_{DE} \end{array} \begin{bmatrix} H_C b & V_C b & V_{BA} b \\ 0 & 1 & 0 \\ 0 & 1 & -1 \\ 1 & 2 & -1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 1 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & -4 & 0 \end{bmatrix}$$

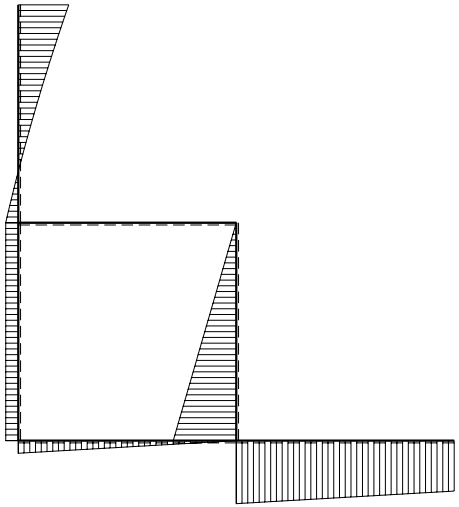
Soluzione del sistema

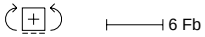
$$\begin{bmatrix} V_C b \\ V_{BA} b \\ H_C b \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 1 & 0 & 0 \\ 1 & 0 & 0 \\ -1 & -4 & 0 \end{bmatrix}$$











REAZIONI

$H_C = -F -4(W/b) = -5F$
$V_C = F = F$
$H_F = 4(W/b) +2qb = 6F$
$W_F = -Fb +4W +qb^2 = 4Fb$

$H_{AB} = 0$
$V_{AB} = -F = -F$
$W_{AB} = -Fb = -Fb$
$H_{BA} = 0$
$V_{BA} = F = F$
$W_{BA} = 0$

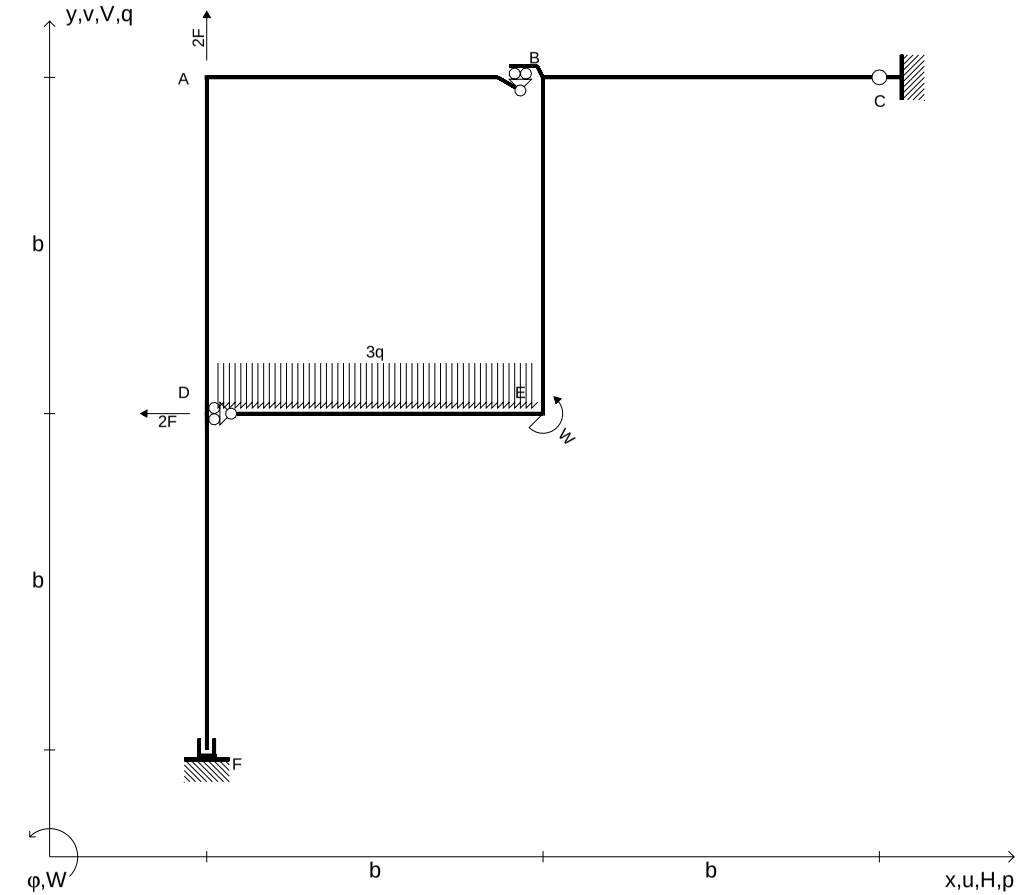
$H_{BC} = F +4(W/b) = 5F$
$V_{BC} = -F = -F$
$W_{BC} = -Fb -4W = -5Fb$
$H_{CB} = -F -4(W/b) = -5F$
$V_{CB} = F = F$
$W_{CB} = 4W = 4Fb$

$H_{DE} = 4(W/b) = 4F$
$V_{DE} = 0$
$W_{DE} = 0$
$H_{ED} = -4(W/b) = -4F$
$V_{ED} = 0$
$W_{ED} = 0$

$H_{AD} = 0$
$V_{AD} = 0$
$W_{AD} = Fb = Fb$
$H_{DA} = 0$
$V_{DA} = 0$
$W_{DA} = -Fb = -Fb$

$H_{DF} = -4(W/b) = -4F$
$V_{DF} = 0$
$W_{DF} = Fb = Fb$
$H_{FD} = 4(W/b) +2qb = 6F$
$V_{FD} = 0$
$W_{FD} = -Fb +4W +qb^2 = 4Fb$

$H_{BE} = -F -4(W/b) = -5F$
$V_{BE} = 0$
$W_{BE} = Fb +4W = 5Fb$
$H_{EB} = F +4(W/b) = 5F$
$V_{EB} = 0$
$W_{EB} = 0$



$H_D = -2F$ $V_A = 2F$ $W_E = W = Fb$ $q_{DE} = -3q = -3F/b$

Svolgere l'analisi cinematica.
Determinare matrice di congruenza e di equilibrio.
Determinare le reazioni vincolari a terra col PLV (Le=0).
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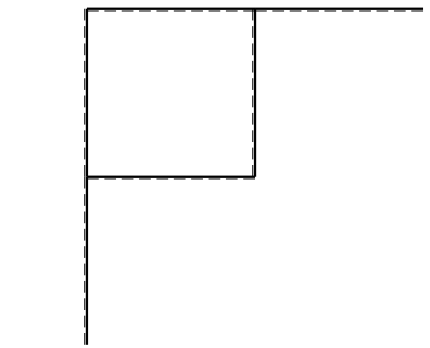
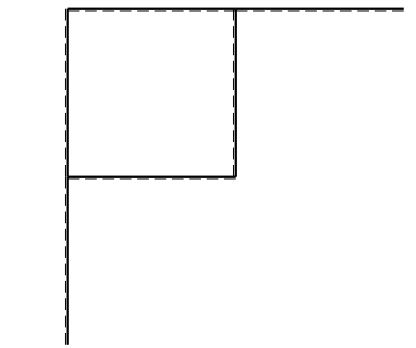
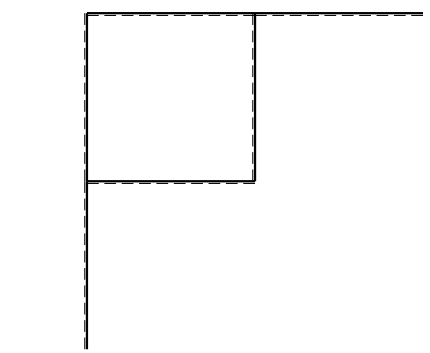
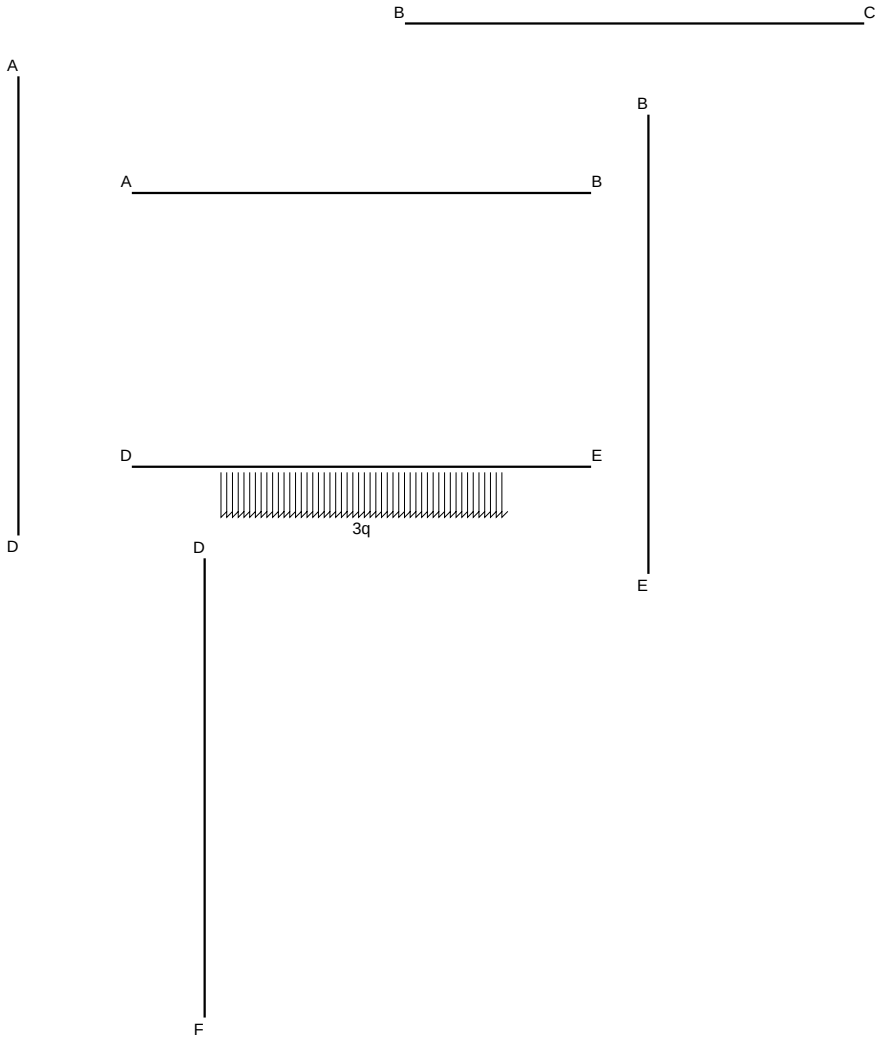
Tracciare i diagrammi delle azioni interne nelle aste.









REAZIONI

H_C =
V_C =

H_F =
W_F =

H_{AB} =
V_{AB} =
W_{AB} =
H_{BA} =
V_{BA} =
W_{BA} =

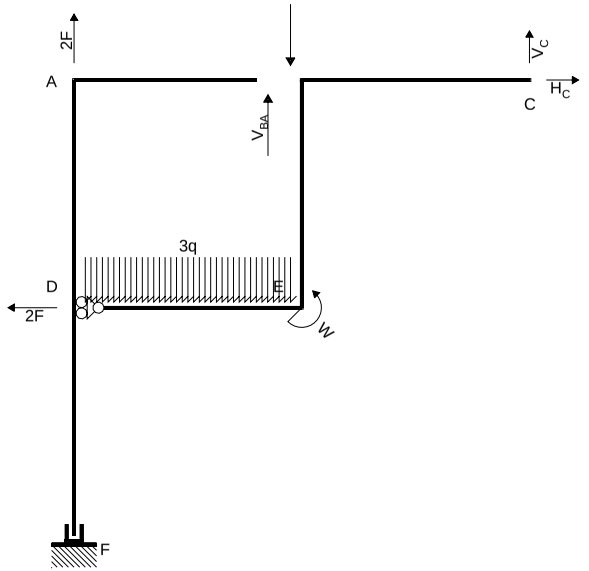
H_{BC} =
V_{BC} =
W_{BC} =
H_{CB} =
V_{CB} =
W_{CB} =

H_{DE} =
V_{DE} =
W_{DE} =
H_{ED} =
V_{ED} =
W_{ED} =

H_{AD} =
V_{AD} =
W_{AD} =
H_{DA} =
V_{DA} =
W_{DA} =

H_{DF} =
V_{DF} =
W_{DF} =
H_{FD} =
V_{FD} =
W_{FD} =

H_{BE} =
V_{BE} =
W_{BE} =
H_{EB} =
V_{EB} =
W_{EB} =



EQUAZIONI DI EQUILIBRIO

Traslazione verticale globale

$V_C = -2F + 3qb$

Traslazione verticale: aste DE EB BC

$V_C - V_{BA} = 3qb$

Rotazione intorno a D: aste DE EB BC

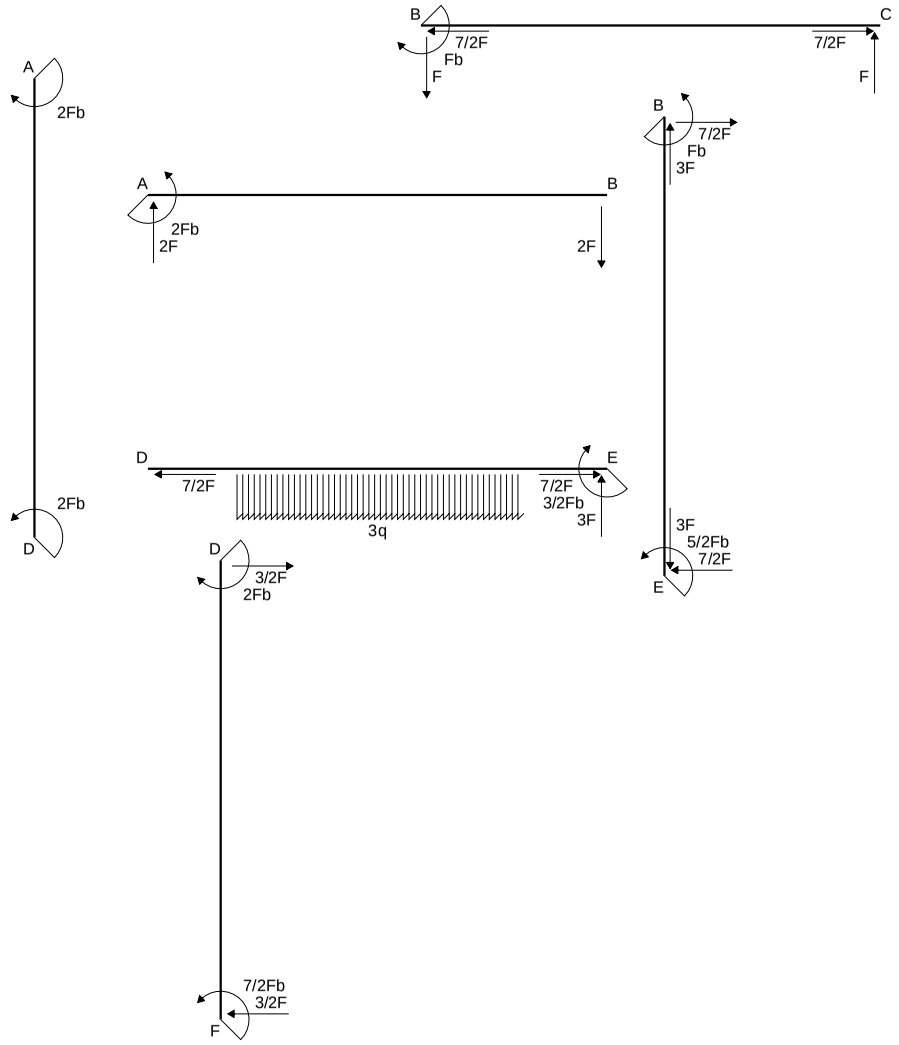
$-H_C b + 2V_C b - V_{BA} b = -W + 3/2 qb^2$

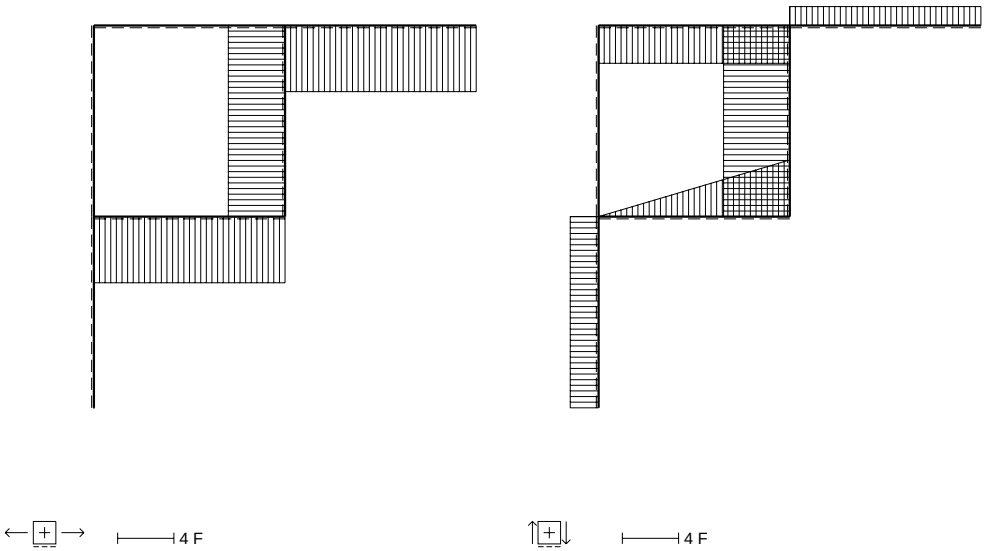
Matrice di equilibrio

$$\begin{array}{c} \\ v_F \\ v_{DE} \\ \varphi_{DE} \end{array} \begin{bmatrix} H_C b & V_C b & V_{BA} b \\ 0 & 1 & 0 \\ 0 & 1 & -1 \\ -1 & 2 & -1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ -2 & 0 & 3 \\ 0 & 0 & 3 \\ 0 & -1 & 3/2 \end{bmatrix}$$

Soluzione del sistema

$$\begin{bmatrix} V_C b \\ V_{BA} b \\ H_C b \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ -2 & 0 & 3 \\ -2 & 0 & 0 \\ -2 & 1 & 9/2 \end{bmatrix}$$





REAZIONI

$H_C = -2F +(W/b) +9/2qb = 7/2F$
$V_C = -2F +3qb = F$

$H_F = 4F -(W/b) -9/2qb = -3/2F$
$W_F = -2Fb +W +9/2qb^2 = 7/2Fb$

$H_{AB} = 0$
$V_{AB} = 2F = 2F$
$W_{AB} = 2Fb = 2Fb$
$H_{BA} = 0$
$V_{BA} = -2F = -2F$
$W_{BA} = 0$

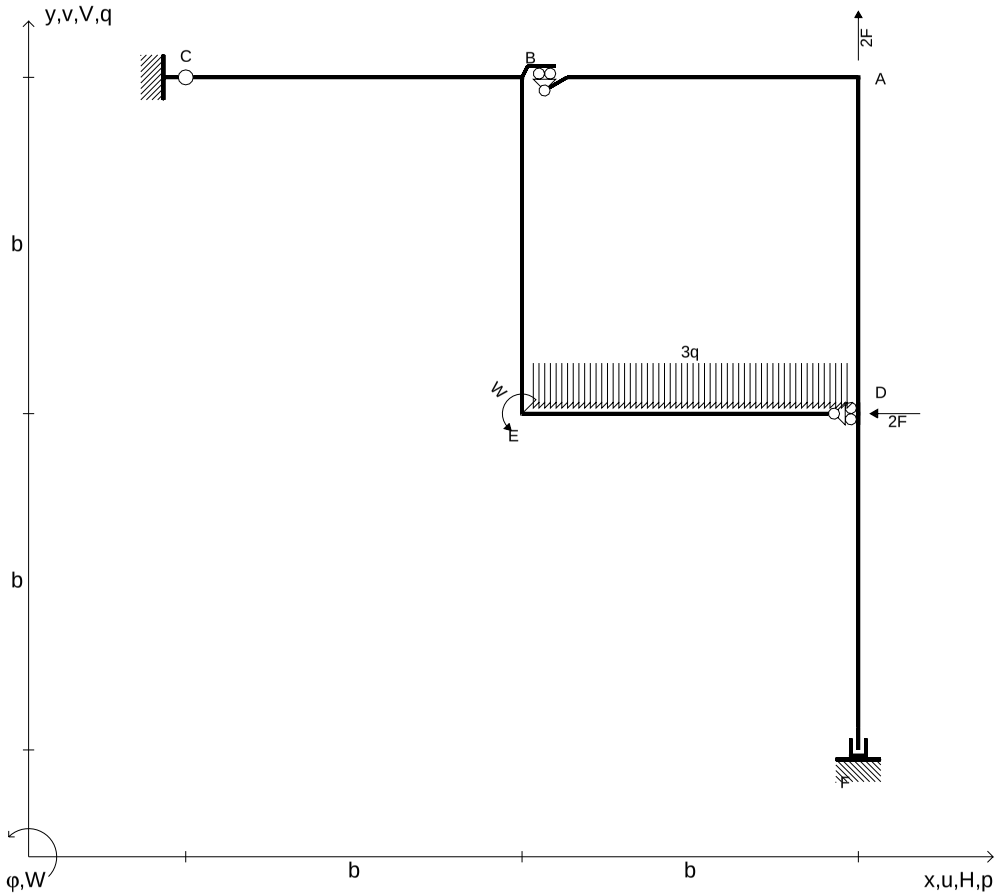
$H_{BC} = 2F -(W/b) -9/2qb = -7/2F$
$V_{BC} = 2F -3qb = -F$
$W_{BC} = 2Fb -3qb^2 = -Fb$
$H_{CB} = -2F +(W/b) +9/2qb = 7/2F$
$V_{CB} = -2F +3qb = F$
$W_{CB} = 0$

$H_{DE} = 2F -(W/b) -9/2qb = -7/2F$
$V_{DE} = 0$
$W_{DE} = 0$
$H_{ED} = -2F +(W/b) +9/2qb = 7/2F$
$V_{ED} = 3qb = 3F$
$W_{ED} = -3/2qb^2 = -3/2Fb$

$H_{AD} = 0$
$V_{AD} = 0$
$W_{AD} = -2Fb = -2Fb$
$H_{DA} = 0$
$V_{DA} = 0$
$W_{DA} = 2Fb = 2Fb$

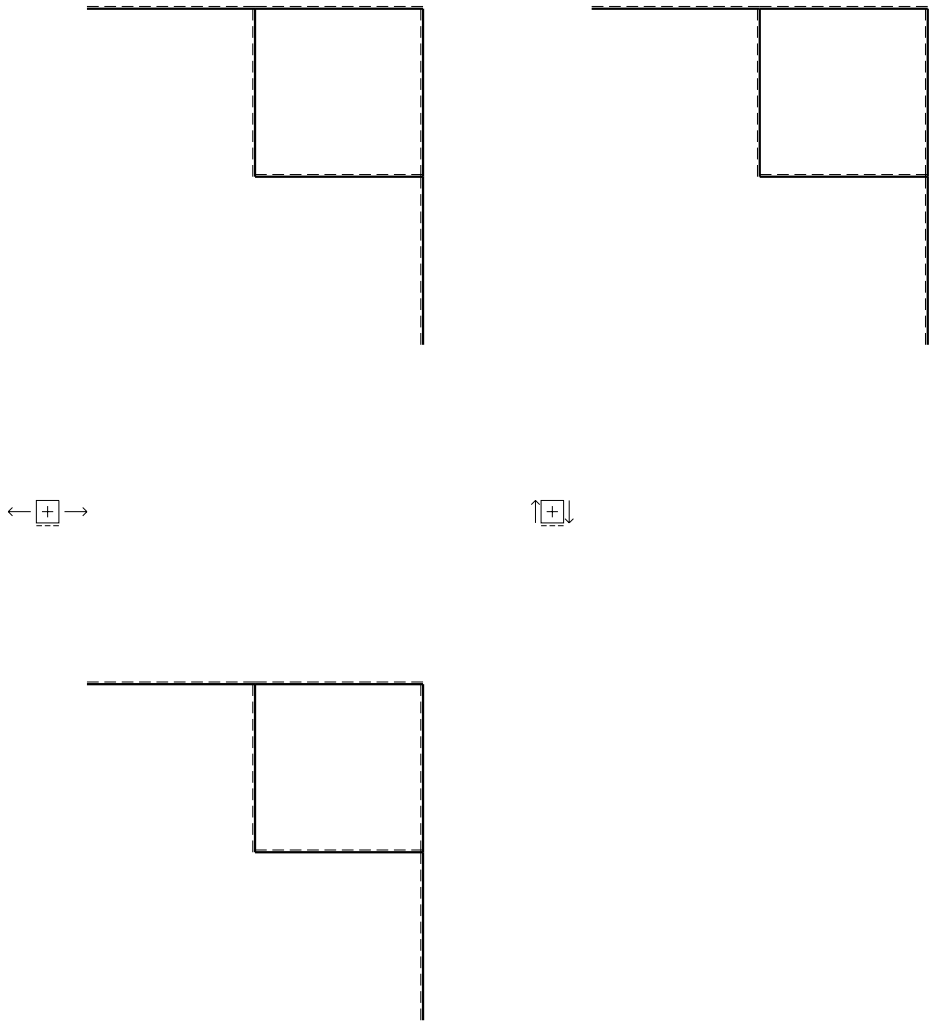
$H_{DF} = -4F +(W/b) +9/2qb = 3/2F$
$V_{DF} = 0$
$W_{DF} = -2Fb = -2Fb$
$H_{FD} = 4F -(W/b) -9/2qb = -3/2F$
$V_{FD} = 0$
$W_{FD} = -2Fb +W +9/2qb^2 = 7/2Fb$

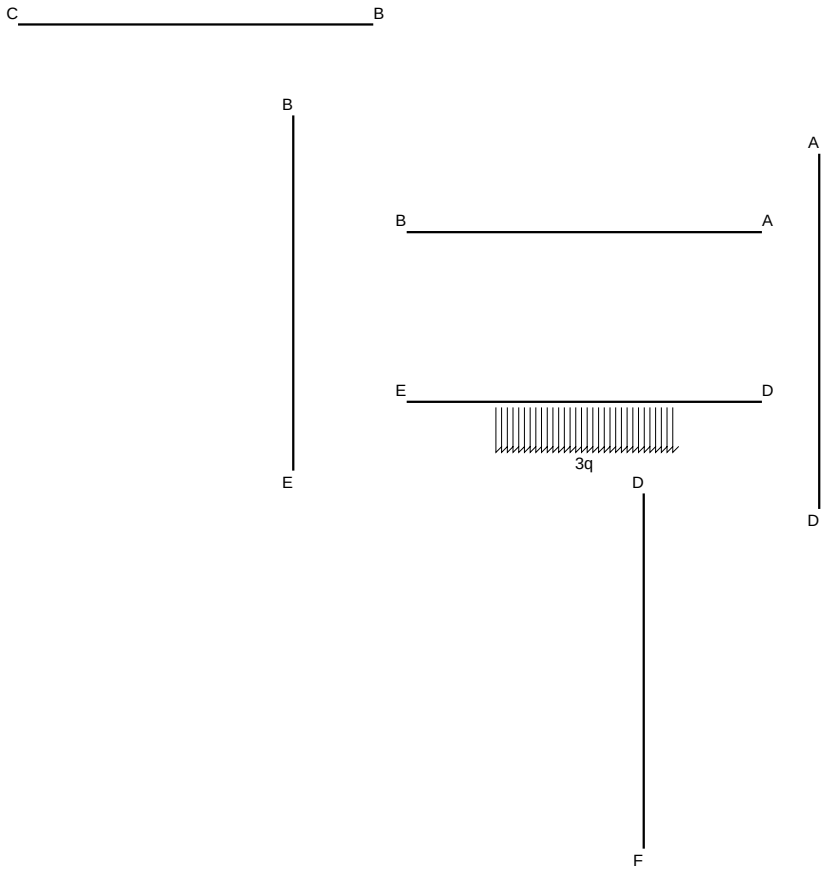
$H_{BE} = -2F +(W/b) +9/2qb = 7/2F$
$V_{BE} = 3qb = 3F$
$W_{BE} = -2Fb +3qb^2 = Fb$
$H_{EB} = 2F -(W/b) -9/2qb = -7/2F$
$V_{EB} = -3qb = -3F$
$W_{EB} = W +3/2qb^2 = 5/2Fb$



$H_D = -2F$ $V_A = 2F$ $W_E = W = Fb$ $q_{DE} = -3q = -3F/b$

Svolgere l'analisi cinematica.
Determinare matrice di congruenza e di equilibrio.
Determinare le reazioni vincolari a terra col PLV (Le=0).
Determinare le azioni interne in B col PLV (Le=0).
Carichi e deformazioni date hanno verso efficace in disegno.
Calcolare reazioni vincolari della struttura e delle aste.
Tracciare i diagrammi delle azioni interne nelle aste.





REAZIONI

H_C =
V_C =

H_F =
W_F =

H_{AB} =
V_{AB} =
W_{AB} =
H_{BA} =
V_{BA} =
W_{BA} =

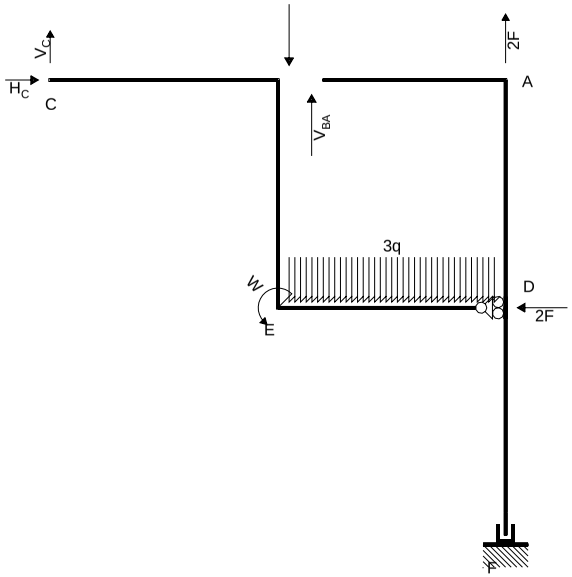
H_{BC} =
V_{BC} =
W_{BC} =
H_{CB} =
V_{CB} =
W_{CB} =

H_{DE} =
V_{DE} =
W_{DE} =
H_{ED} =
V_{ED} =
W_{ED} =

H_{AD} =
V_{AD} =
W_{AD} =
H_{DA} =
V_{DA} =
W_{DA} =

H_{DF} =
V_{DF} =
W_{DF} =
H_{FD} =
V_{FD} =
W_{FD} =

H_{BE} =
V_{BE} =
W_{BE} =
H_{EB} =
V_{EB} =
W_{EB} =



EQUAZIONI DI EQUILIBRIO

Traslazione verticale globale

$V_C = -2F + 3qb$

Traslazione verticale: aste DE EB BC

$V_C - V_{BA} = 3qb$

Rotazione intorno a D: aste DE EB BC

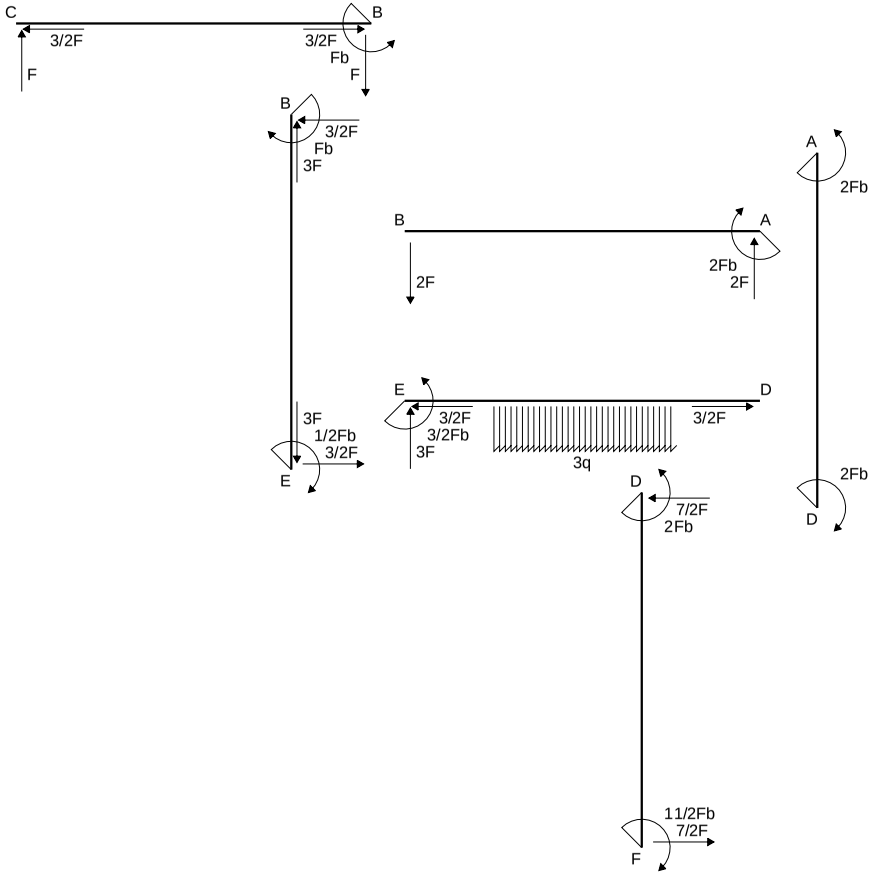
$-H_C b - 2V_C b + V_{BA} b = -W - 3/2 qb^2$

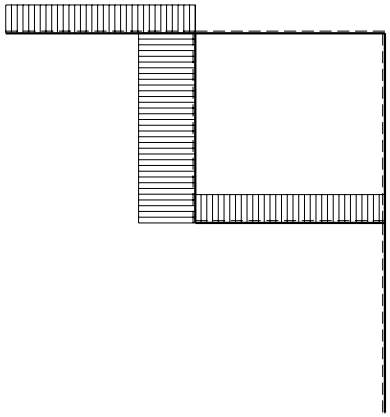
Matrice di equilibrio

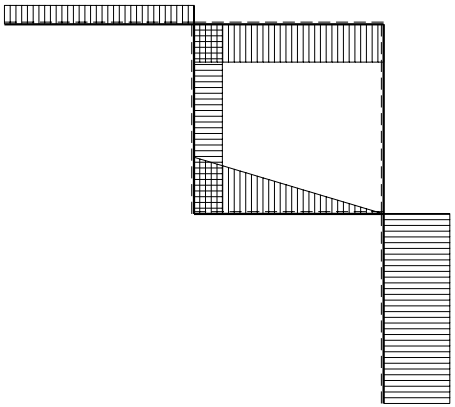
$$\begin{matrix} & \begin{bmatrix} H_C b & V_C b & V_{BA} b \end{bmatrix} \\ \begin{matrix} v_F \\ v_{DE} \\ \varphi_{DE} \end{matrix} & \begin{bmatrix} 0 & 1 & 0 \\ 0 & 1 & -1 \\ -1 & -2 & 1 \end{bmatrix} \end{matrix} = \begin{bmatrix} Fb & W & qb^2 \\ -2 & 0 & 3 \\ 0 & 0 & 3 \\ 0 & -1 & -3/2 \end{bmatrix}$$

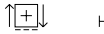
Soluzione del sistema

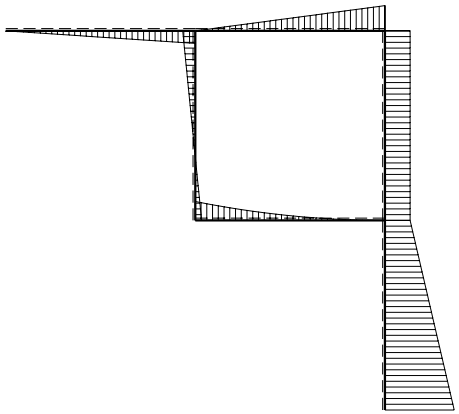
$$\begin{bmatrix} V_C b \\ V_{BA} b \\ H_C b \end{bmatrix} = \begin{matrix} \begin{bmatrix} Fb & W & qb^2 \end{bmatrix} \\ \begin{bmatrix} -2 & 0 & 3 \\ -2 & 0 & 0 \\ 2 & 1 & -9/2 \end{bmatrix} \end{matrix}$$

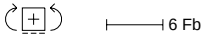












REAZIONI

$H_C = 2F +(W/b) -9/2qb = -3/2F$
$V_C = -2F +3qb = F$
$H_F = -(W/b) +9/2qb = 7/2F$
$W_F = -2Fb +W -9/2qb^2 = -11/2Fb$

$H_{AB} = 0$
$V_{AB} = 2F = 2F$
$W_{AB} = -2Fb = -2Fb$
$H_{BA} = 0$
$V_{BA} = -2F = -2F$
$W_{BA} = 0$

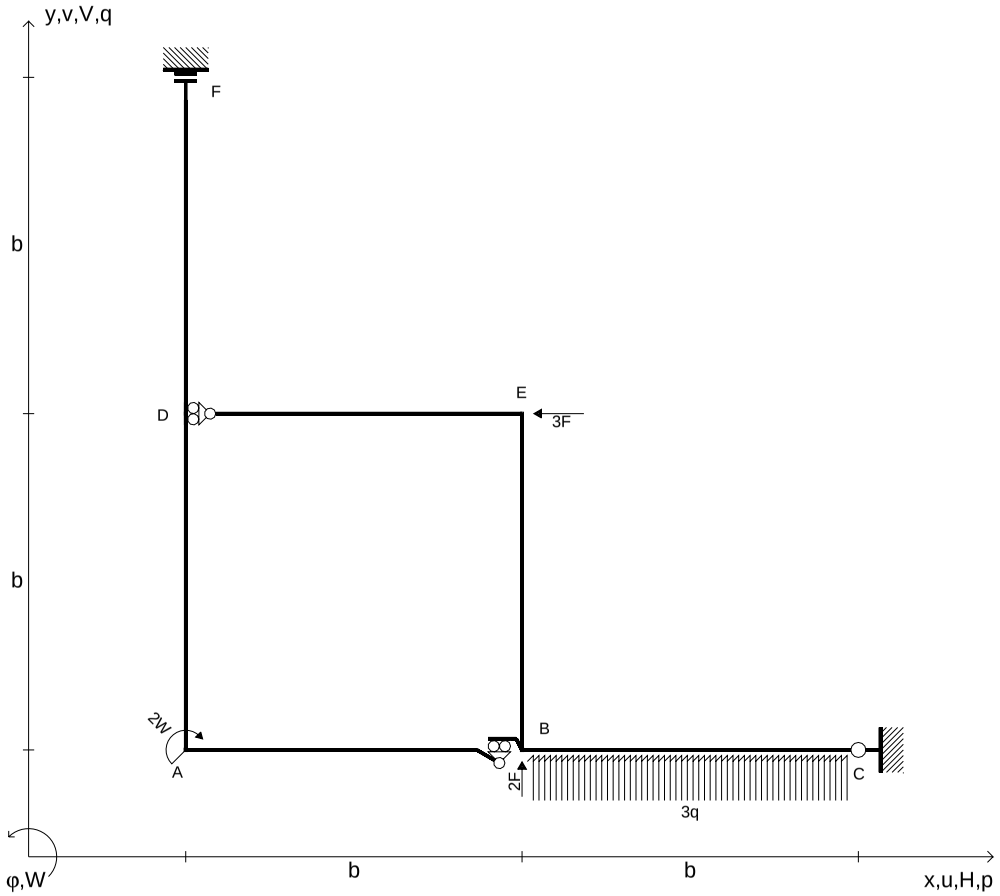
$H_{BC} = -2F -(W/b) +9/2qb = 3/2F$
$V_{BC} = 2F -3qb = -F$
$W_{BC} = -2Fb +3qb^2 = Fb$
$H_{CB} = 2F +(W/b) -9/2qb = -3/2F$
$V_{CB} = -2F +3qb = F$
$W_{CB} = 0$

$H_{DE} = -2F -(W/b) +9/2qb = 3/2F$
$V_{DE} = 0$
$W_{DE} = 0$
$H_{ED} = 2F +(W/b) -9/2qb = -3/2F$
$V_{ED} = 3qb = 3F$
$W_{ED} = 3/2qb^2 = 3/2Fb$

$H_{AD} = 0$
$V_{AD} = 0$
$W_{AD} = 2Fb = 2Fb$
$H_{DA} = 0$
$V_{DA} = 0$
$W_{DA} = -2Fb = -2Fb$

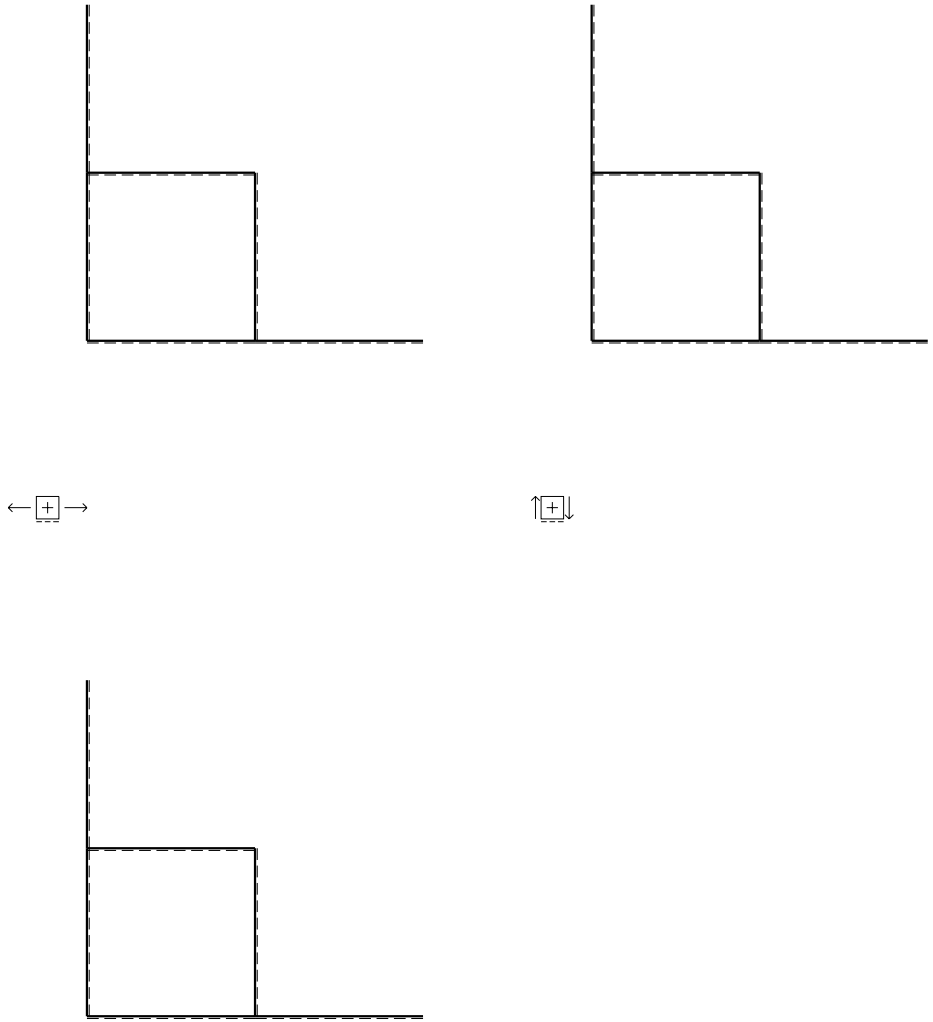
$H_{DF} = (W/b) -9/2qb = -7/2F$
$V_{DF} = 0$
$W_{DF} = 2Fb = 2Fb$
$H_{FD} = -(W/b) +9/2qb = 7/2F$
$V_{FD} = 0$
$W_{FD} = -2Fb +W -9/2qb^2 = -11/2Fb$

$H_{BE} = 2F +(W/b) -9/2qb = -3/2F$
$V_{BE} = 3qb = 3F$
$W_{BE} = 2Fb -3qb^2 = -Fb$
$H_{EB} = -2F -(W/b) +9/2qb = 3/2F$
$V_{EB} = -3qb = -3F$
$W_{EB} = W -3/2qb^2 = -1/2Fb$



$V_B = 2F$ $H_E = -3F$ $W_A = -2W = -2Fb$ $q_{BC} = 3q = 3F/b$

Svolgere l'analisi cinematica.
Determinare matrice di congruenza e di equilibrio.
Determinare le reazioni vincolari a terra col PLV (Le=0).
Determinare le azioni interne in B col PLV (Le=0).
Carichi e deformazioni date hanno verso efficace in disegno.
Calcolare reazioni vincolari della struttura e delle aste.
Tracciare i diagrammi delle azioni interne nelle aste.



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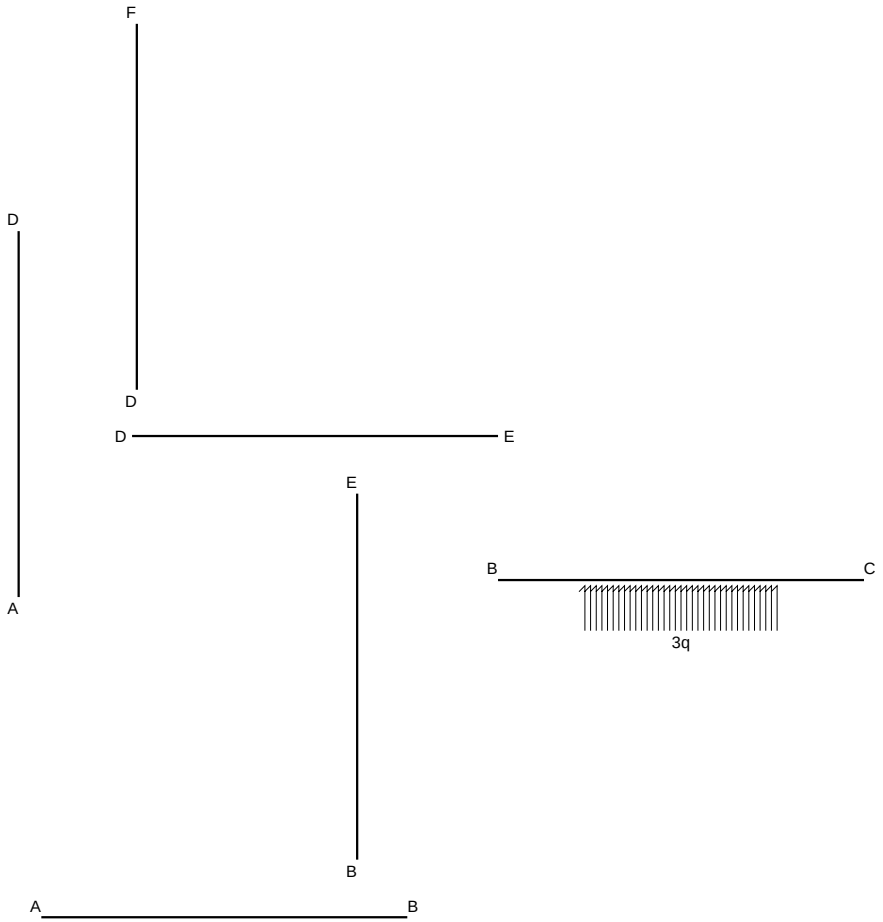


REAZIONI

H_C =
V_C =

V_F =
W_F =

H_{AB} =
V_{AB} =
W_{AB} =
H_{BA} =
V_{BA} =
W_{BA} =

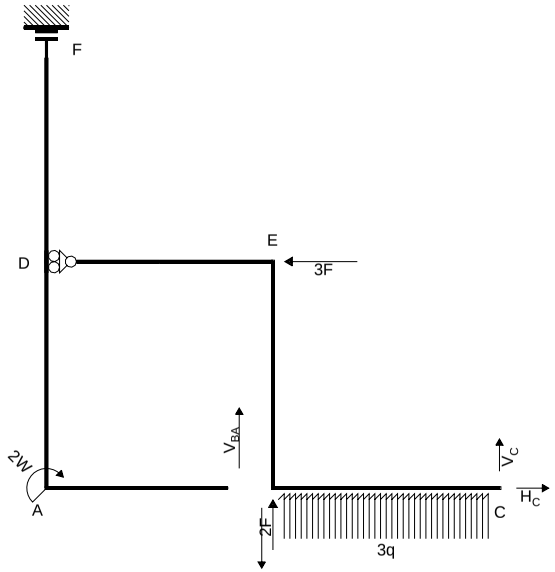
H_{BC} =
V_{BC} =
W_{BC} =
H_{CB} =
V_{CB} =
W_{CB} =

H_{DE} =
V_{DE} =
W_{DE} =
H_{ED} =
V_{ED} =
W_{ED} =

H_{AD} =
V_{AD} =
W_{AD} =
H_{DA} =
V_{DA} =
W_{DA} =

H_{DF} =
V_{DF} =
W_{DF} =
H_{FD} =
V_{FD} =
W_{FD} =

H_{BE} =
V_{BE} =
W_{BE} =
H_{EB} =
V_{EB} =
W_{EB} =



EQUAZIONI DI EQUILIBRIO

Traslazione orizzontale globale

$H_C = 3F$

Traslazione verticale: aste DE EB BC

$V_C - V_{BA} = -2F - 3qb$

Rotazione intorno a D: aste DE EB BC

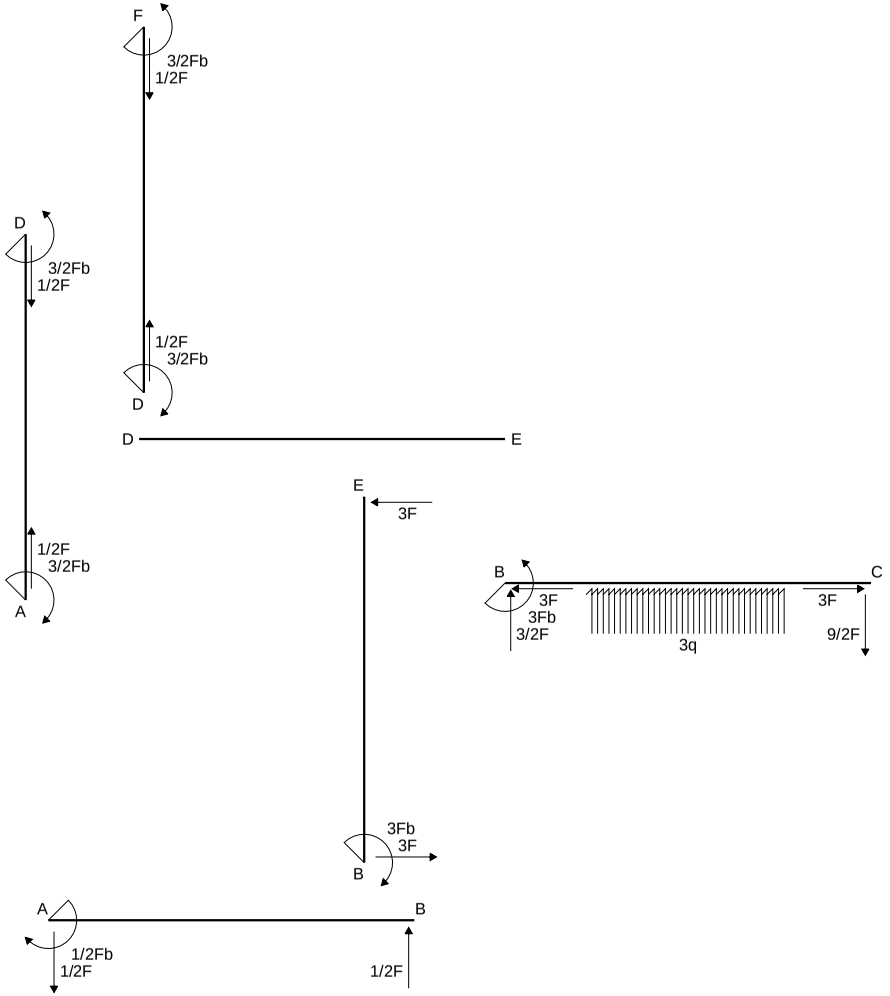
$H_C b + 2V_C b - V_{BA} b = -2Fb - 9/2qb^2$

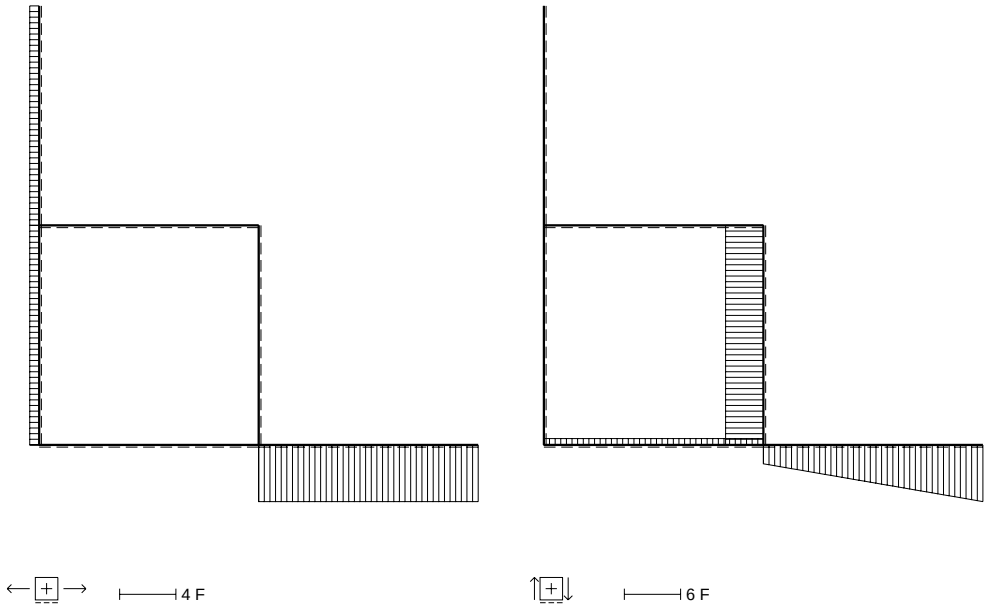
Matrice di equilibrio

$$\begin{array}{c} \\ u_F \\ v_{DE} \\ \varphi_{DE} \end{array} \begin{bmatrix} H_C b & V_C b & V_{BA} b \\ 1 & 0 & 0 \\ 0 & 1 & -1 \\ 1 & 2 & -1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 3 & 0 & 0 \\ -2 & 0 & -3 \\ -2 & 0 & -9/2 \end{bmatrix}$$

Soluzione del sistema

$$\begin{bmatrix} H_C b \\ V_C b \\ V_{BA} b \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 3 & 0 & 0 \\ -3 & 0 & -3/2 \\ -1 & 0 & 3/2 \end{bmatrix}$$





REAZIONI

$H_C = 3F = 3F$
$V_C = -3F -3/2qb = -9/2F$
$V_F = F -3/2qb = -1/2F$
$W_F = Fb +2W -3/2qb^2 = 3/2Fb$

$H_{AB} = 0$
$V_{AB} = F -3/2qb = -1/2F$
$W_{AB} = Fb -3/2qb^2 = -1/2Fb$
$H_{BA} = 0$
$V_{BA} = -F +3/2qb = 1/2F$
$W_{BA} = 0$

$H_{BC} = -3F = -3F$
$V_{BC} = 3F -3/2qb = 3/2F$
$W_{BC} = 3Fb = 3Fb$
$H_{CB} = 3F = 3F$
$V_{CB} = -3F -3/2qb = -9/2F$
$W_{CB} = 0$

$H_{DE} = 0$
$V_{DE} = 0$
$W_{DE} = 0$
$H_{ED} = 0$
$V_{ED} = 0$
$W_{ED} = 0$

$H_{AD} = 0$
$V_{AD} = -F +3/2qb = 1/2F$
$W_{AD} = -Fb -2W +3/2qb^2 = -3/2Fb$
$H_{DA} = 0$
$V_{DA} = F -3/2qb = -1/2F$
$W_{DA} = Fb +2W -3/2qb^2 = 3/2Fb$

$H_{DF} = 0$
$V_{DF} = -F +3/2qb = 1/2F$
$W_{DF} = -Fb -2W +3/2qb^2 = -3/2Fb$
$H_{FD} = 0$
$V_{FD} = F -3/2qb = -1/2F$
$W_{FD} = Fb +2W -3/2qb^2 = 3/2Fb$

$H_{BE} = 3F = 3F$
$V_{BE} = 0$
$W_{BE} = -3Fb = -3Fb$
$H_{EB} = -3F = -3F$
$V_{EB} = 0$
$W_{EB} = 0$