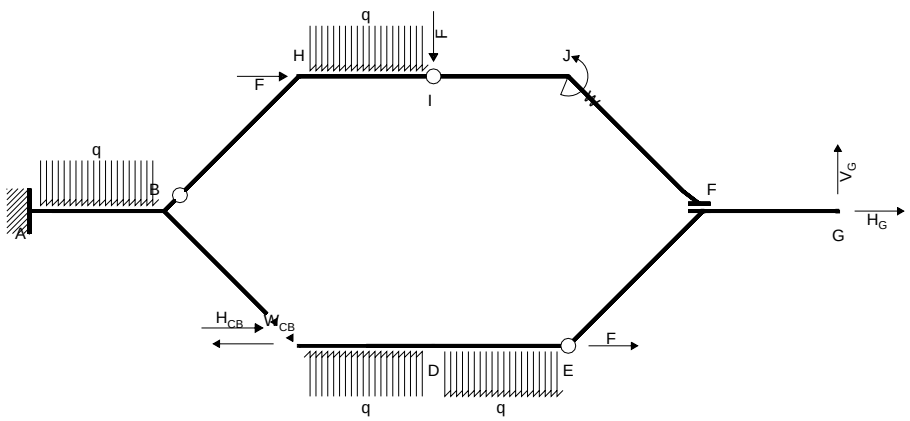


EQUAZIONI DI EQUILIBRIO

Rotazione intorno a B: aste BH HI IJ JF FE FG ED DC

$5V_G b - H_{CB} b - W_{CB} = 2Fb - W + 5/2qb^2$

Rotazione intorno a I: aste IJ JF FE FG ED DC

$H_G b + 3V_G b - 2H_{CB} b - W_{CB} = -2Fb - W + qb^2$

Traslazione orizzontale: aste FE FG ED DC

$H_G - H_{CB} = -F$

Rotazione intorno a E: aste ED DC

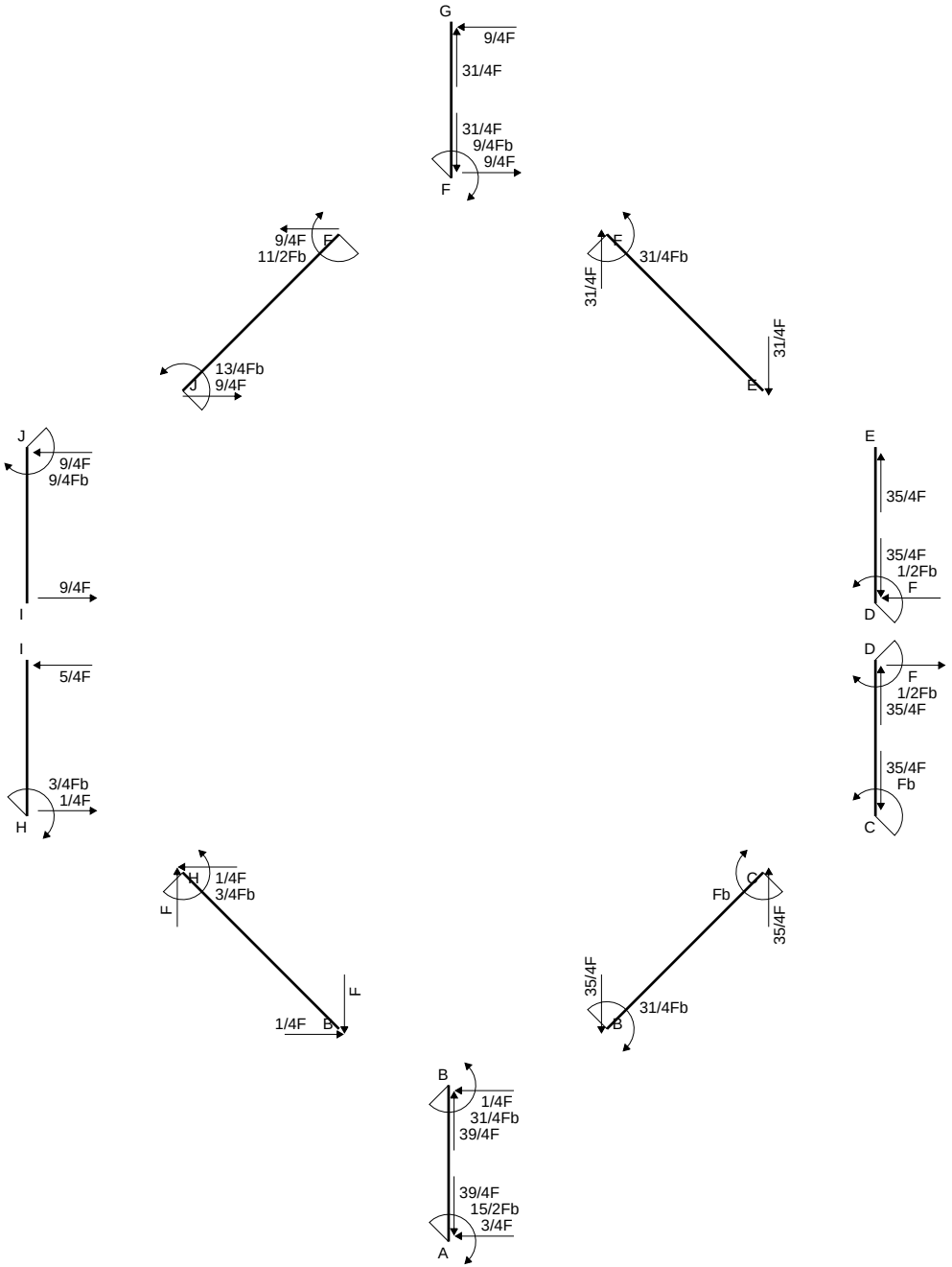
$-W_{CB} = qb^2$

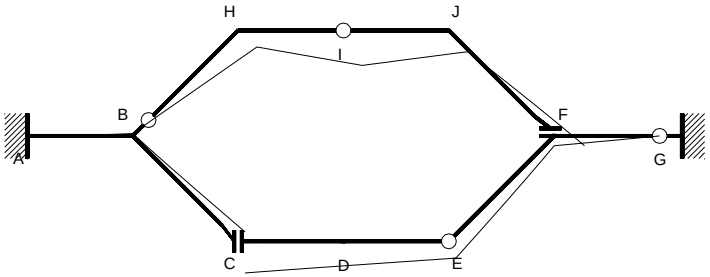
Matrice di equilibrio

$$\begin{array}{c} \\ \varphi_{BH} \\ \varphi_{IH} \\ u_{FJ} \\ \varphi_{ED} \end{array} \begin{bmatrix} H_G b & V_G b & H_{CB} b & W_{CB} \\ 0 & 5 & -1 & -1 \\ 1 & 3 & -2 & -1 \\ 1 & 0 & -1 & 0 \\ 0 & 0 & 0 & -1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 2 & -1 & 5/2 \\ -2 & -1 & 1 \\ -1 & 0 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

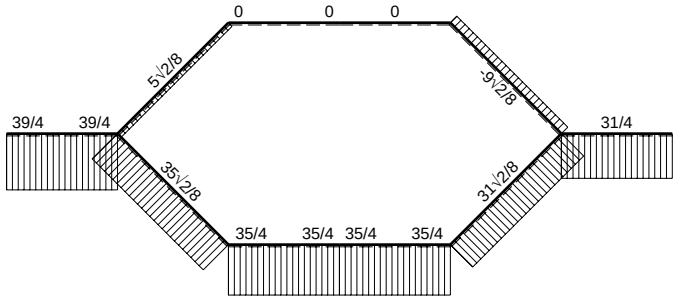
Soluzione del sistema

$$\begin{bmatrix} V_G b \\ H_G b \\ H_{CB} b \\ W_{CB} \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 3/2 & 0 & 3/4 \\ 9/2 & 1 & 9/4 \\ 11/2 & 1 & 9/4 \\ 0 & 0 & -1 \end{bmatrix}$$





120 Fb^3/EJ



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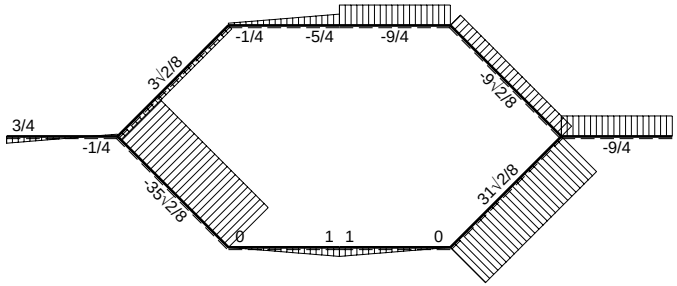

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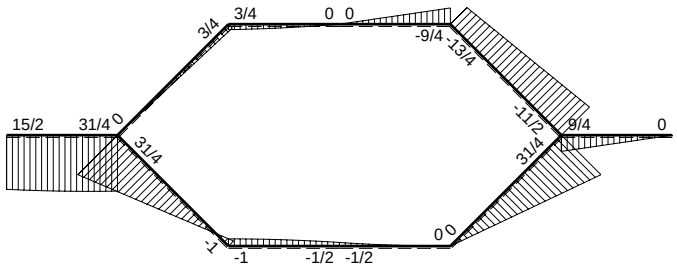

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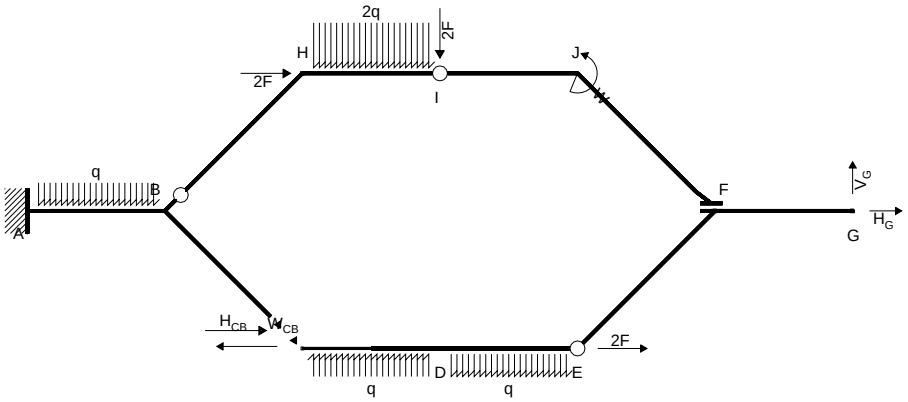


EQUAZIONI DI EQUILIBRIO

Rotazione intorno a B: aste BH HI IJ JF FE FG ED DC

$5V_Gb - H_{CB}b - W_{CB} = 4Fb - W + 4qb^2$

Rotazione intorno a I: aste IJ JF FE FG ED DC

$H_Gb + 3V_Gb - 2H_{CB}b - W_{CB} = -4Fb - W + qb^2$

Traslazione orizzontale: aste FE FG ED DC

$H_G - H_{CB} = -2F$

Rotazione intorno a E: aste ED DC

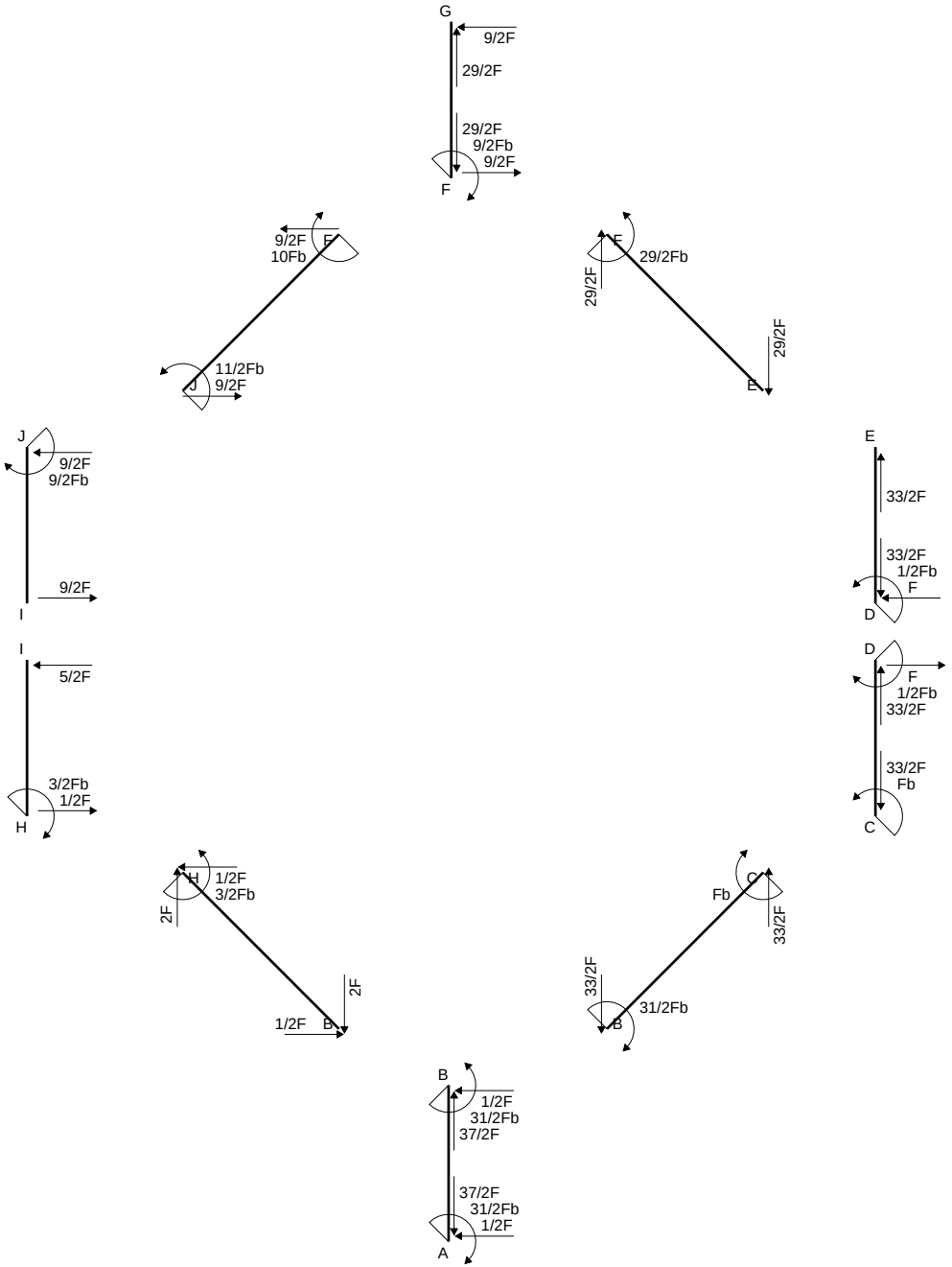
$-W_{CB} = qb^2$

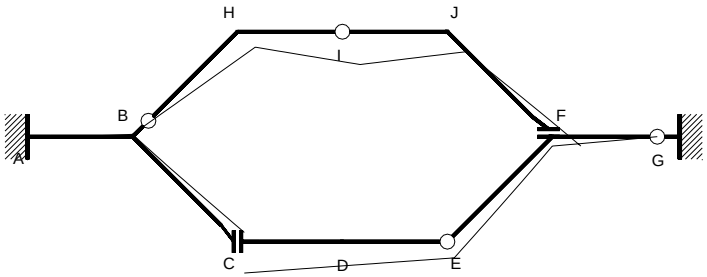
Matrice di equilibrio

$$\begin{array}{c} \\ \varphi_{BH} \\ \varphi_{IH} \\ u_{FJ} \\ \varphi_{ED} \end{array} \begin{bmatrix} H_Gb & V_Gb & H_{CB}b & W_{CB} \\ 0 & 5 & -1 & -1 \\ 1 & 3 & -2 & -1 \\ 1 & 0 & -1 & 0 \\ 0 & 0 & 0 & -1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 4 & -1 & 4 \\ -4 & -1 & 1 \\ -2 & 0 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

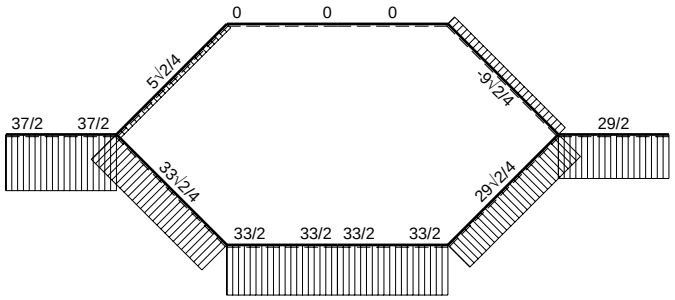
Soluzione del sistema

$$\begin{bmatrix} V_Gb \\ H_Gb \\ H_{CB}b \\ W_{CB} \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 3 & 0 & 3/2 \\ 9 & 1 & 9/2 \\ 11 & 1 & 9/2 \\ 0 & 0 & -1 \end{bmatrix}$$





250 Fb^3/EJ



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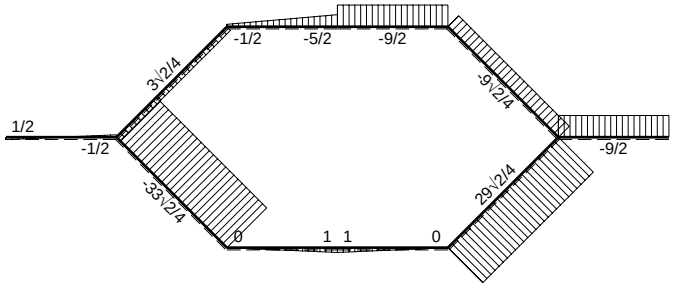

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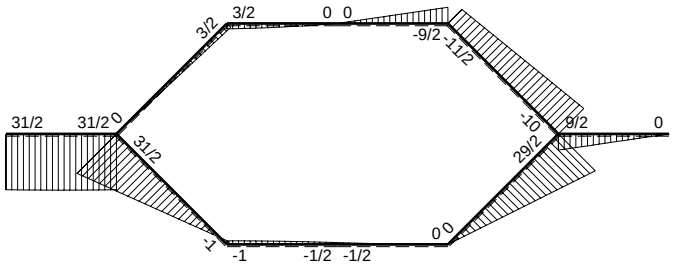

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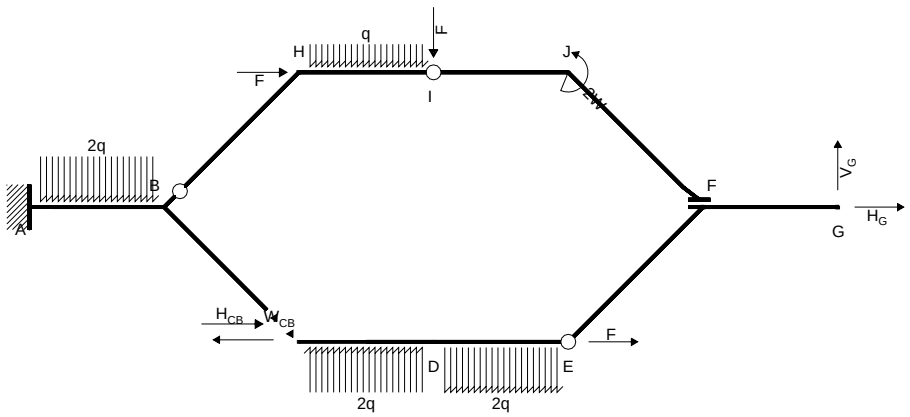


EQUAZIONI DI EQUILIBRIO

Rotazione intorno a B: aste BH HI IJ JF FE FG ED DC

$5V_G b - H_{CB} b - W_{CB} = 2Fb - 2W + 7/2 qb^2$

Rotazione intorno a I: aste IJ JF FE FG ED DC

$H_G b + 3V_G b - 2H_{CB} b - W_{CB} = -2Fb - 2W + 2qb^2$

Traslazione orizzontale: aste FE FG ED DC

$H_G - H_{CB} = -F$

Rotazione intorno a E: aste ED DC

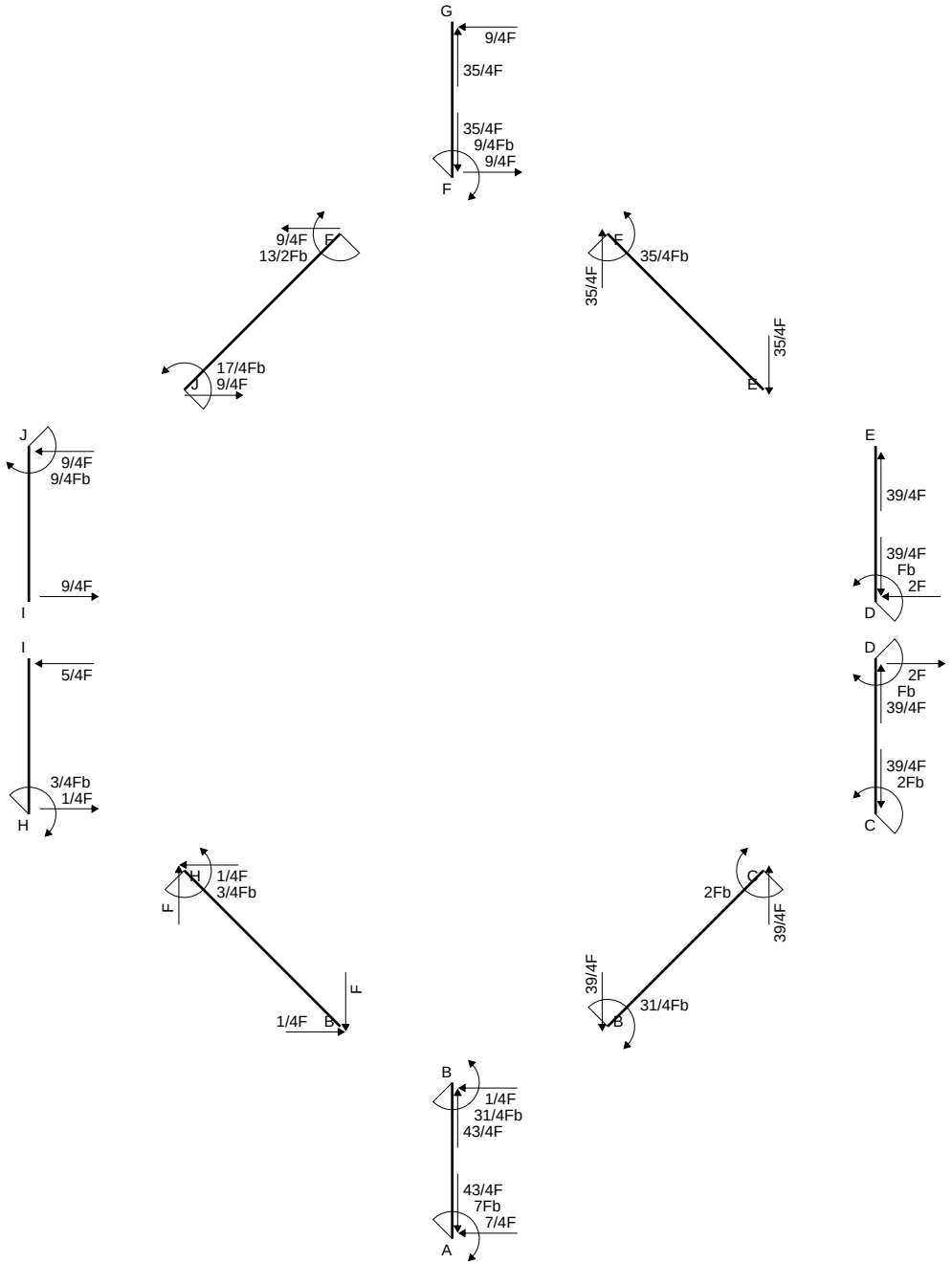
$-W_{CB} = 2qb^2$

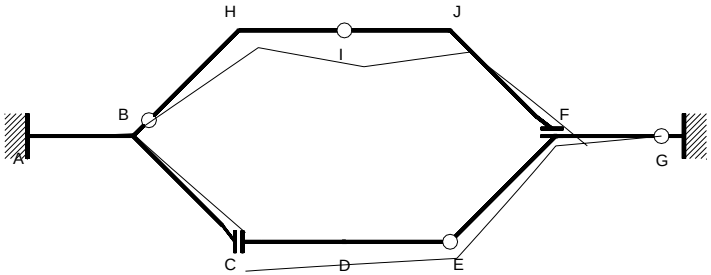
Matrice di equilibrio

	$H_G b$	$V_G b$	$H_{CB} b$	W_{CB}		Fb	W	qb^2
φ_{BH}	0	5	-1	-1		2	-2	7/2
φ_{IH}	1	3	-2	-1	=	-2	-2	2
u_{FJ}	1	0	-1	0		-1	0	0
φ_{ED}	0	0	0	-1		0	0	2

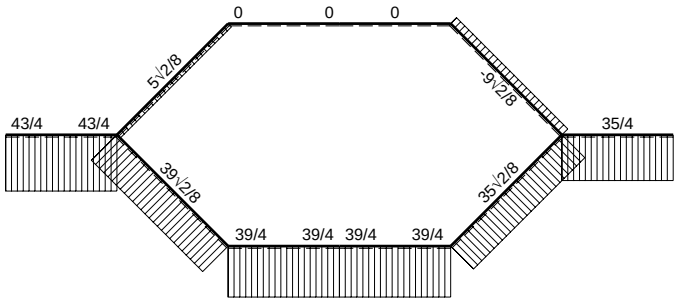
Soluzione del sistema

		Fb	W	qb^2
$V_G b$		3/2	0	3/4
$H_G b$	=	9/2	2	9/4
$H_{CB} b$		11/2	2	9/4
W_{CB}		0	0	-2





120 Fb^3/EJ



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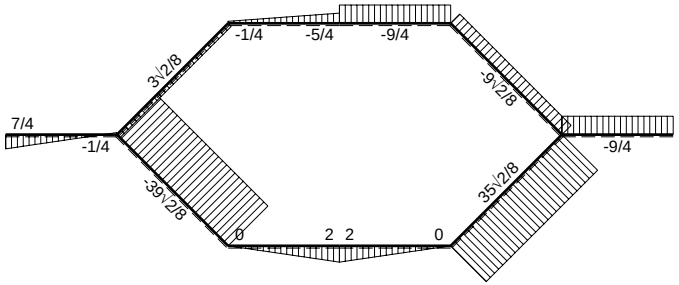

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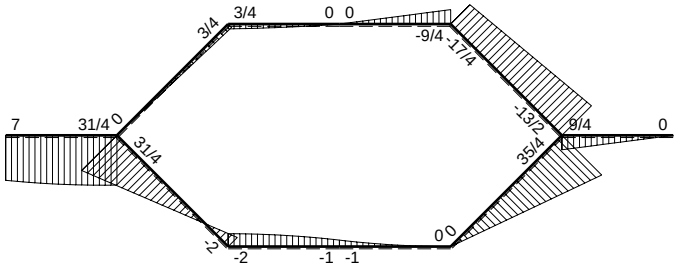

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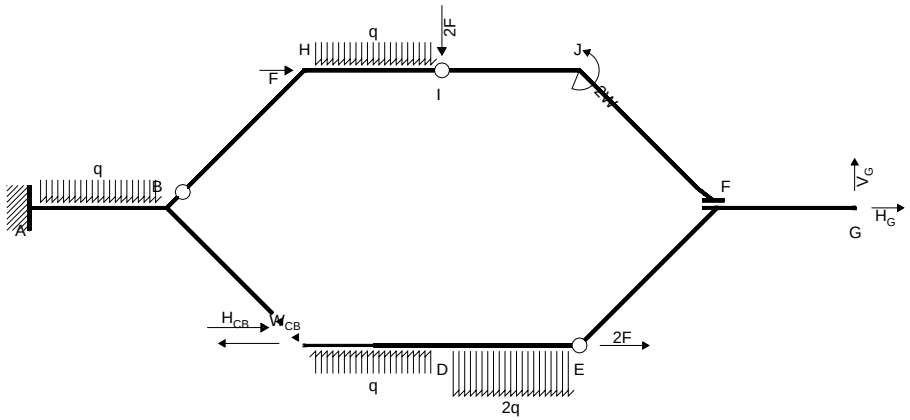


EQUAZIONI DI EQUILIBRIO

Rotazione intorno a B: aste BH HI IJ JF FE FG ED DC

$5V_Gb - H_{CB}b - W_{CB} = 3Fb - 2W + 5qb^2$

Rotazione intorno a I: aste IJ JF FE FG ED DC

$H_Gb + 3V_Gb - 2H_{CB}b - W_{CB} = -4Fb - 2W + 3/2qb^2$

Traslazione orizzontale: aste FE FG ED DC

$H_G - H_{CB} = -2F$

Rotazione intorno a E: aste ED DC

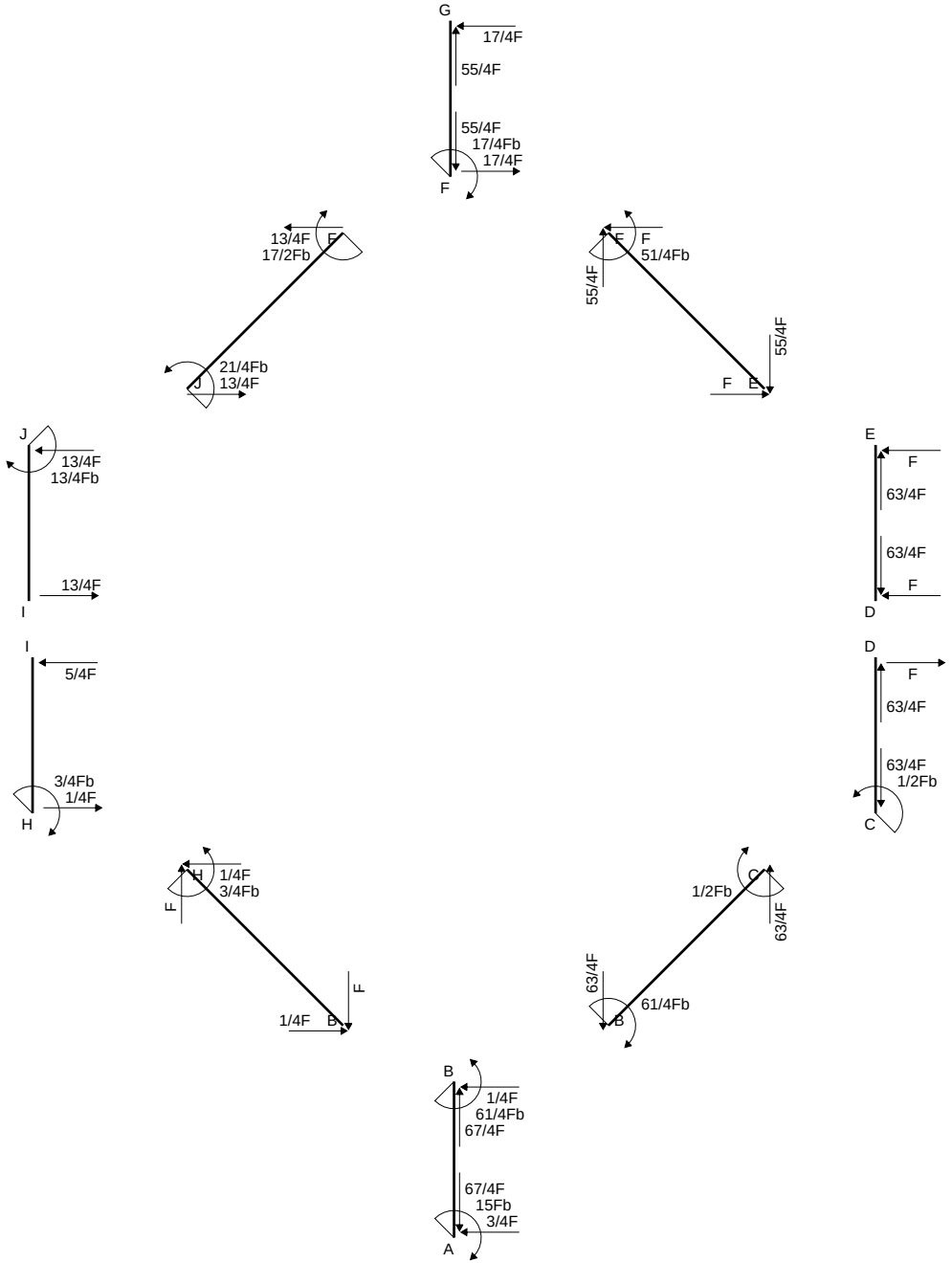
$-W_{CB} = 1/2qb^2$

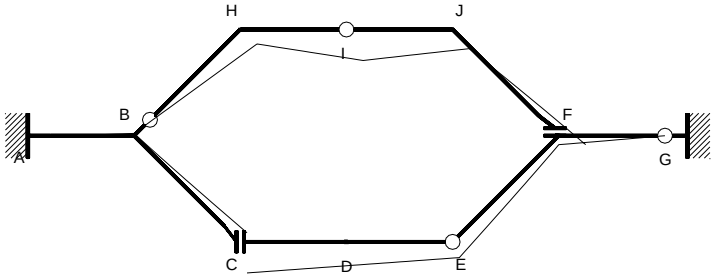
Matrice di equilibrio

$$\begin{array}{c} \\ \varphi_{BH} \\ \varphi_{IH} \\ u_{FJ} \\ \varphi_{ED} \end{array} \begin{bmatrix} H_Gb & V_Gb & H_{CB}b & W_{CB} \\ 0 & 5 & -1 & -1 \\ 1 & 3 & -2 & -1 \\ 1 & 0 & -1 & 0 \\ 0 & 0 & 0 & -1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 3 & -2 & 5 \\ -4 & -2 & 3/2 \\ -2 & 0 & 0 \\ 0 & 0 & 1/2 \end{bmatrix}$$

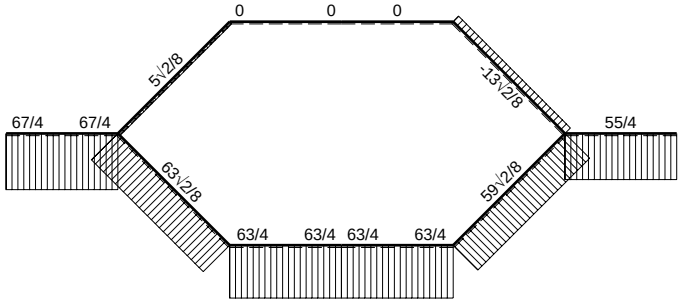
Soluzione del sistema

$$\begin{bmatrix} V_Gb \\ H_Gb \\ H_{CB}b \\ W_{CB} \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 5/2 & 0 & 7/4 \\ 15/2 & 2 & 17/4 \\ 19/2 & 2 & 17/4 \\ 0 & 0 & -1/2 \end{bmatrix}$$





250 Fb^3/EJ



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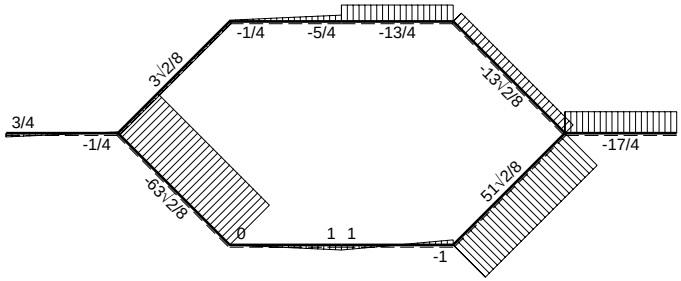

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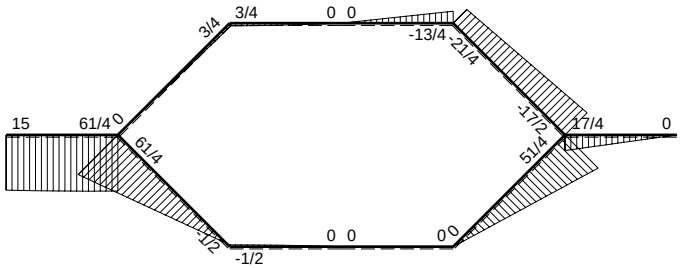

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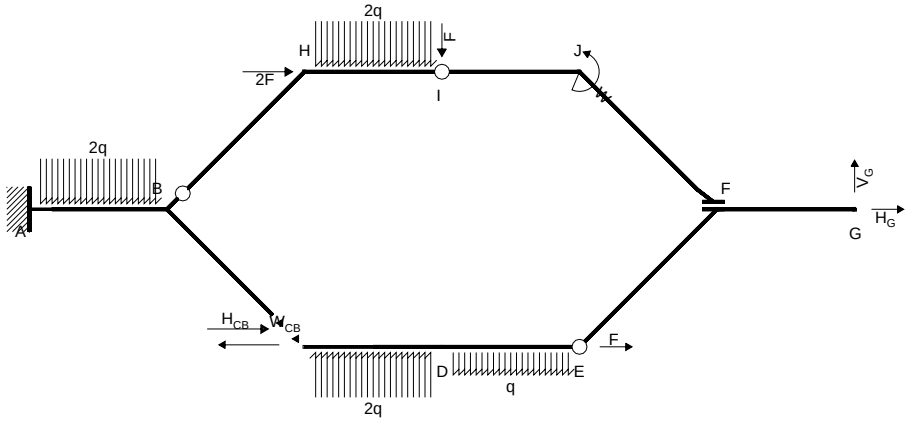


EQUAZIONI DI EQUILIBRIO

Rotazione intorno a B: aste BH HI IJ JF FE FG ED DC

$5V_Gb - H_{CB}b - W_{CB} = 3Fb - W + 5/2qb^2$

Rotazione intorno a I: aste IJ JF FE FG ED DC

$H_Gb + 3V_Gb - 2H_{CB}b - W_{CB} = -2Fb - W + 3/2qb^2$

Traslazione orizzontale: aste FE FG ED DC

$H_G - H_{CB} = -F$

Rotazione intorno a E: aste ED DC

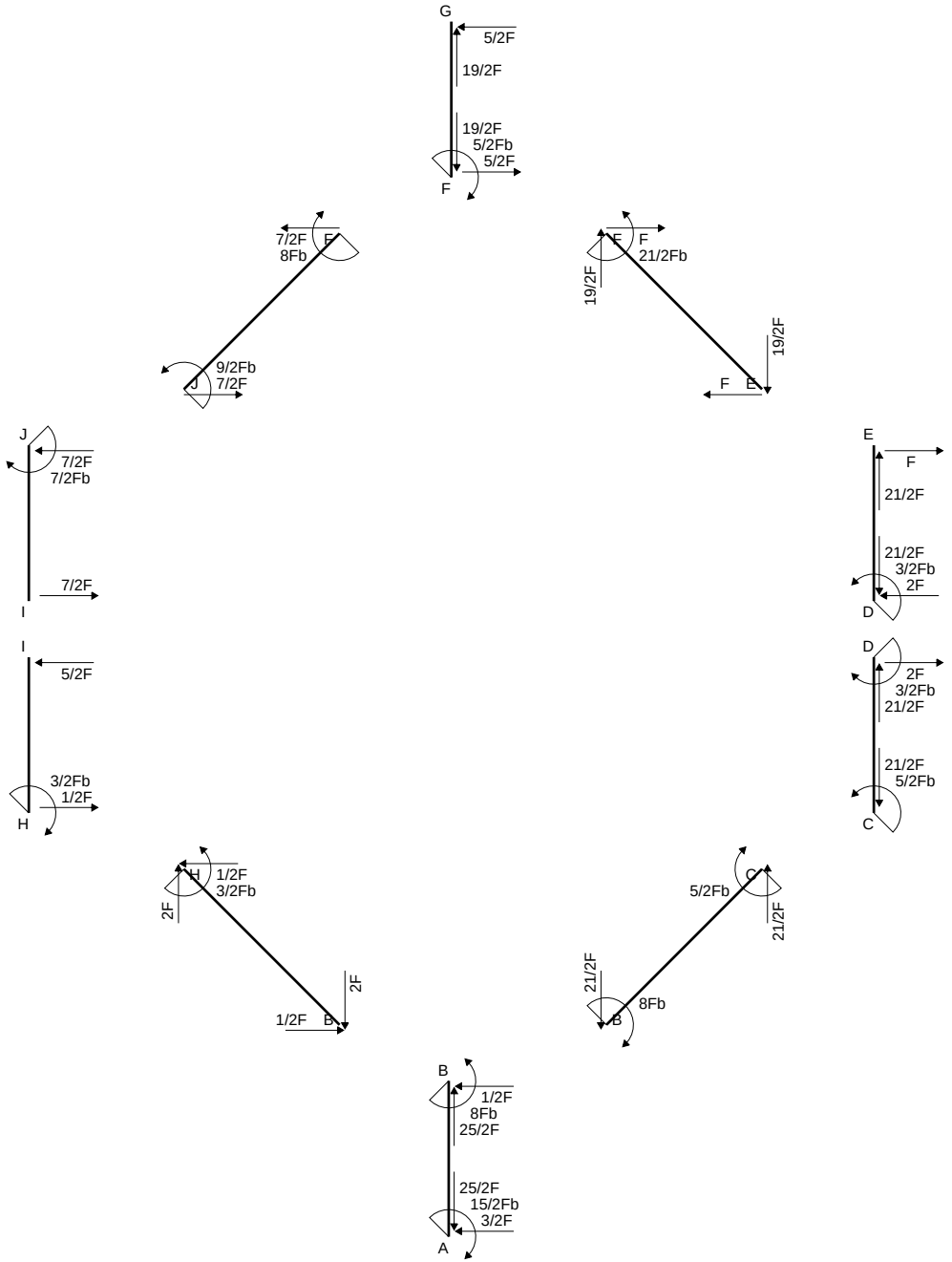
$-W_{CB} = 5/2qb^2$

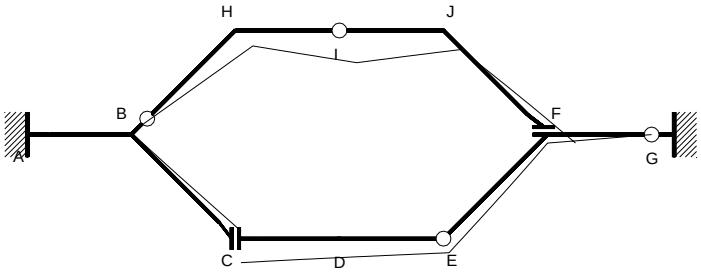
Matrice di equilibrio

$$\begin{array}{c} \\ \varphi_{BH} \\ \varphi_{IH} \\ u_{FJ} \\ \varphi_{ED} \end{array} \begin{bmatrix} H_Gb & V_Gb & H_{CB}b & W_{CB} \\ 0 & 5 & -1 & -1 \\ 1 & 3 & -2 & -1 \\ 1 & 0 & -1 & 0 \\ 0 & 0 & 0 & -1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 3 & -1 & 5/2 \\ -2 & -1 & 3/2 \\ -1 & 0 & 0 \\ 0 & 0 & 5/2 \end{bmatrix}$$

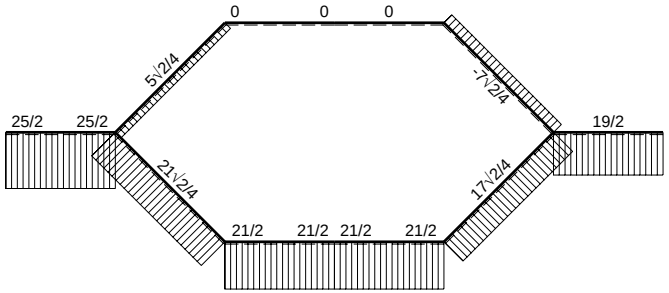
Soluzione del sistema

$$\begin{bmatrix} V_Gb \\ H_Gb \\ H_{CB}b \\ W_{CB} \end{bmatrix} = \begin{array}{c} \begin{bmatrix} Fb & W & qb^2 \end{bmatrix} \\ \begin{bmatrix} 2 & 0 & 1/2 \\ 6 & 1 & 5/2 \\ 7 & 1 & 5/2 \\ 0 & 0 & -5/2 \end{bmatrix} \end{array}$$





150 Fb^3/EJ



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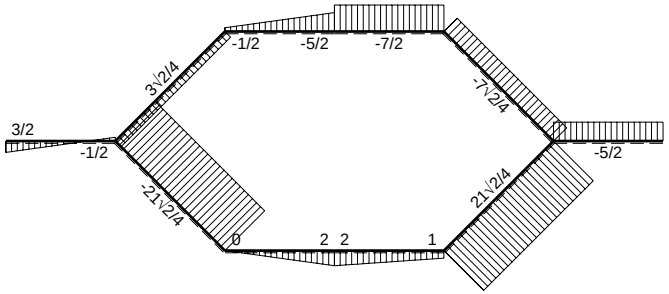

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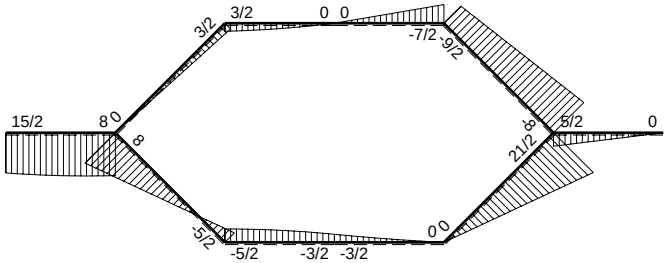

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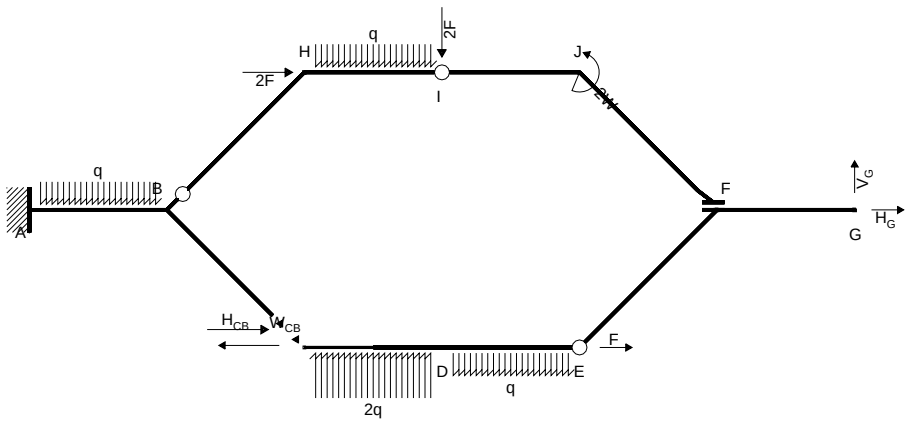


EQUAZIONI DI EQUILIBRIO

Rotazione intorno a B: aste BH HI IJ JF FE FG ED DC

$5V_G b - H_{CB} b - W_{CB} = 5Fb - 2W + qb^2$

Rotazione intorno a I: aste IJ JF FE FG ED DC

$H_G b + 3V_G b - 2H_{CB} b - W_{CB} = -2Fb - 2W + 3/2qb^2$

Traslazione orizzontale: aste FE FG ED DC

$H_G - H_{CB} = -F$

Rotazione intorno a E: aste ED DC

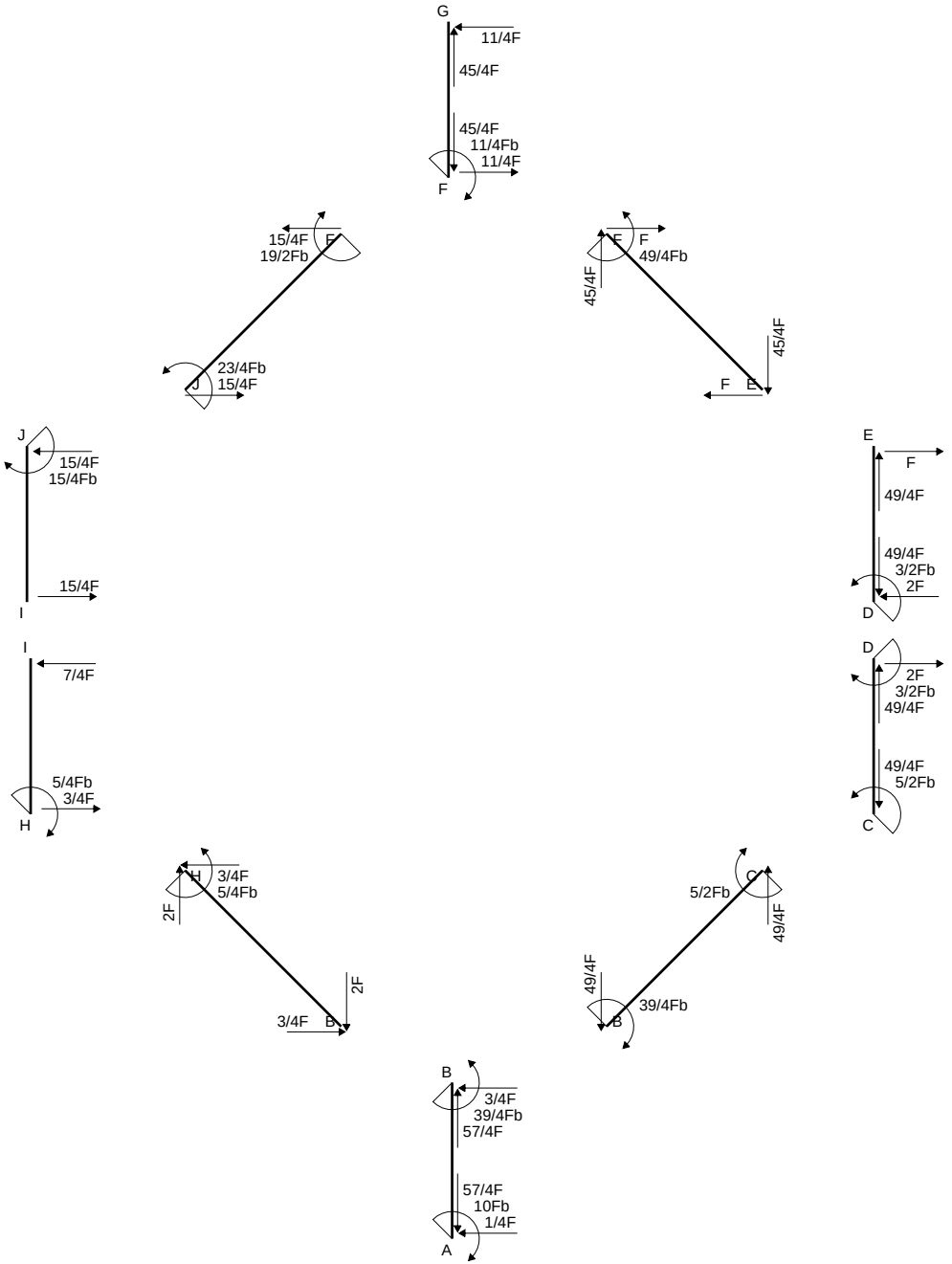
$-W_{CB} = 5/2qb^2$

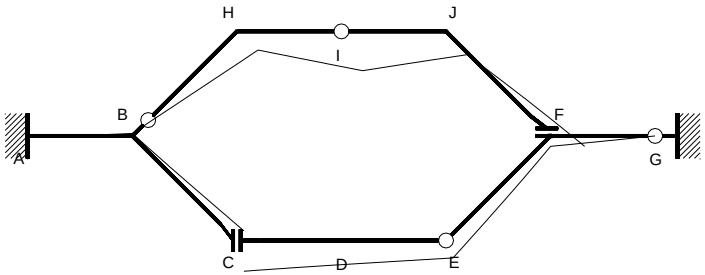
Matrice di equilibrio

$$\begin{array}{c} \\ \varphi_{BH} \\ \varphi_{IH} \\ u_{FJ} \\ \varphi_{ED} \end{array} \begin{bmatrix} H_G b & V_G b & H_{CB} b & W_{CB} \\ 0 & 5 & -1 & -1 \\ 1 & 3 & -2 & -1 \\ 1 & 0 & -1 & 0 \\ 0 & 0 & 0 & -1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 5 & -2 & 1 \\ -2 & -2 & 3/2 \\ -1 & 0 & 0 \\ 0 & 0 & 5/2 \end{bmatrix}$$

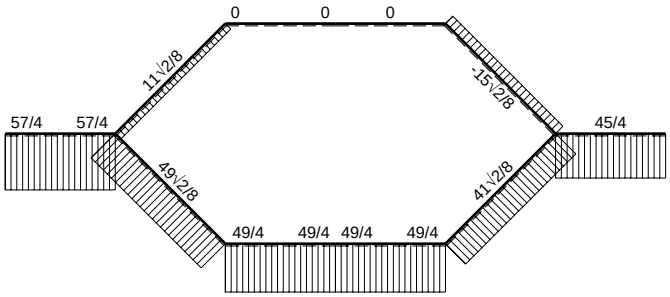
Soluzione del sistema

$$\begin{bmatrix} V_G b \\ H_G b \\ H_{CB} b \\ W_{CB} \end{bmatrix} = \begin{array}{c} \begin{bmatrix} Fb & W & qb^2 \end{bmatrix} \\ \begin{bmatrix} 3 & 0 & -1/4 \\ 9 & 2 & 1/4 \\ 10 & 2 & 1/4 \\ 0 & 0 & -5/2 \end{bmatrix} \end{array}$$





150 Fb^3/EJ



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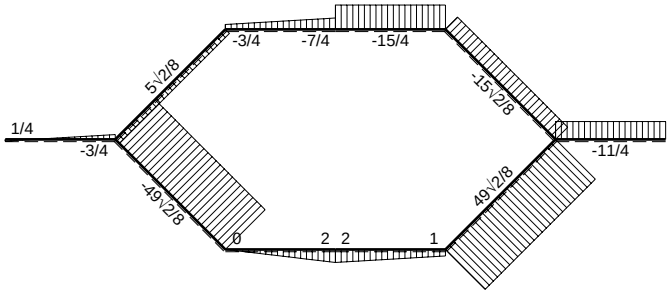

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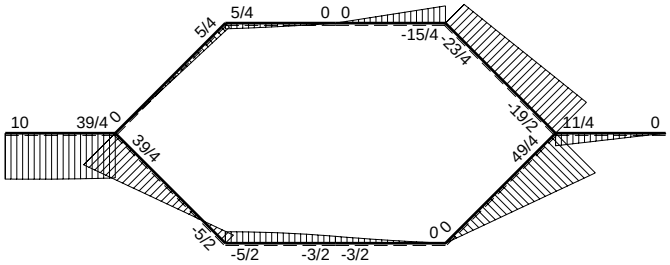

Fb

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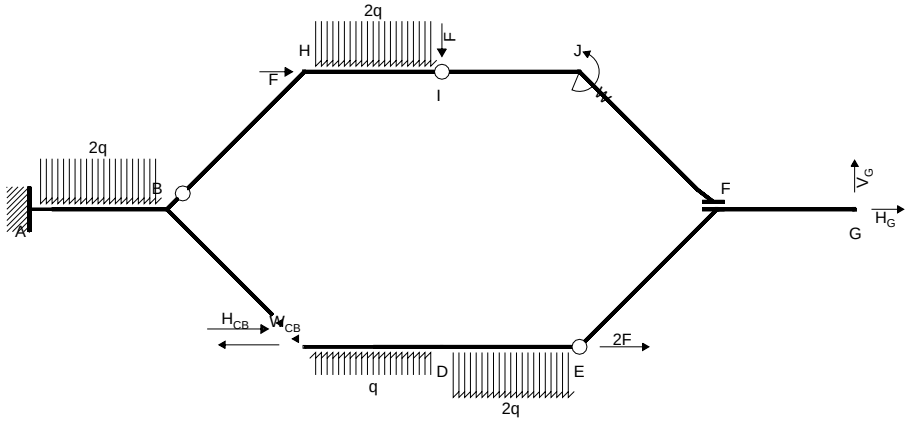


EQUAZIONI DI EQUILIBRIO

Rotazione intorno a B: aste BH HI IJ JF FE FG ED DC

$5V_Gb - H_{CB}b - W_{CB} = Fb - W + 13/2qb^2$

Rotazione intorno a I: aste IJ JF FE FG ED DC

$H_Gb + 3V_Gb - 2H_{CB}b - W_{CB} = -4Fb - W + 3/2qb^2$

Traslazione orizzontale: aste FE FG ED DC

$H_G - H_{CB} = -2F$

Rotazione intorno a E: aste ED DC

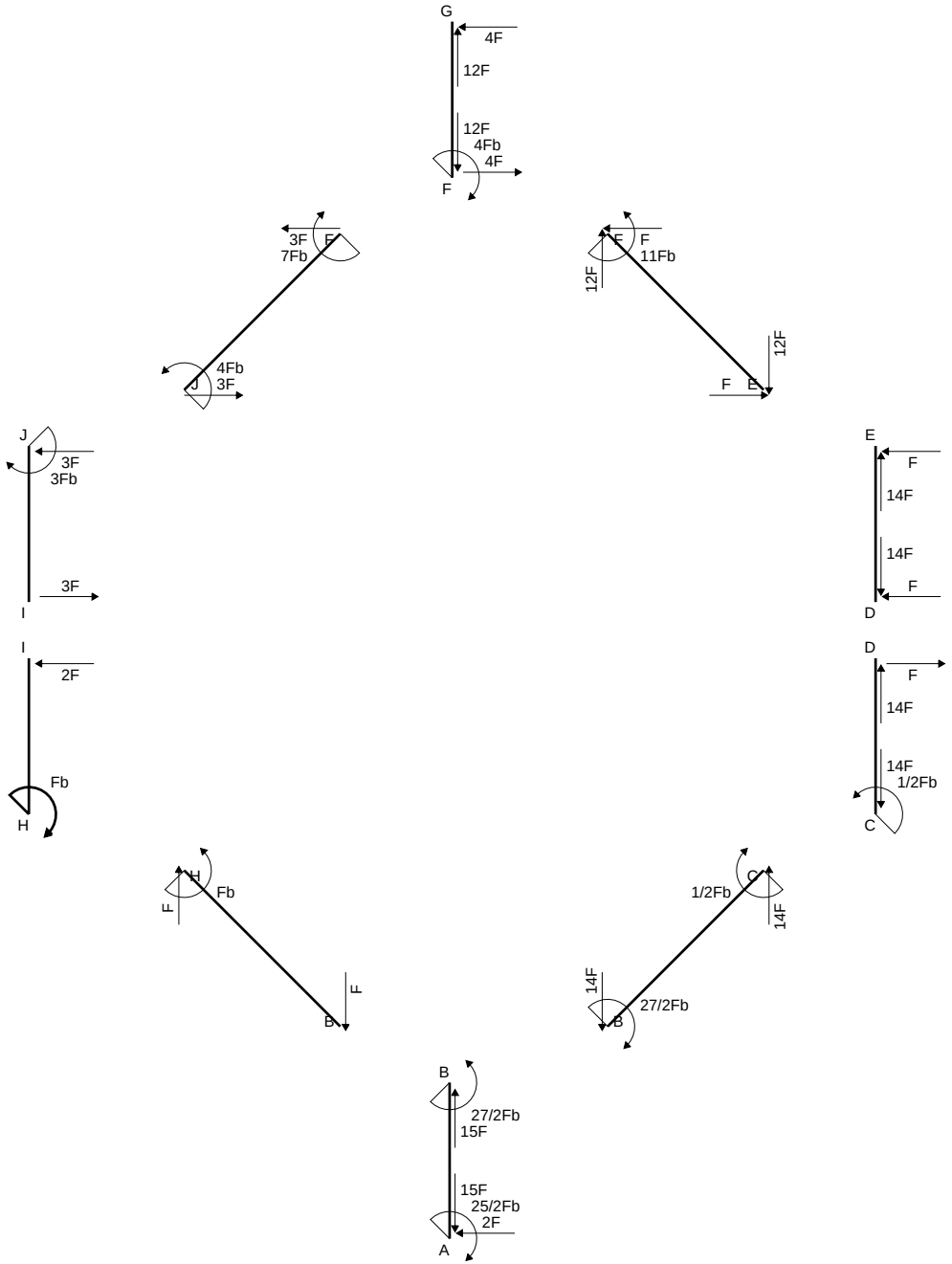
$-W_{CB} = 1/2qb^2$

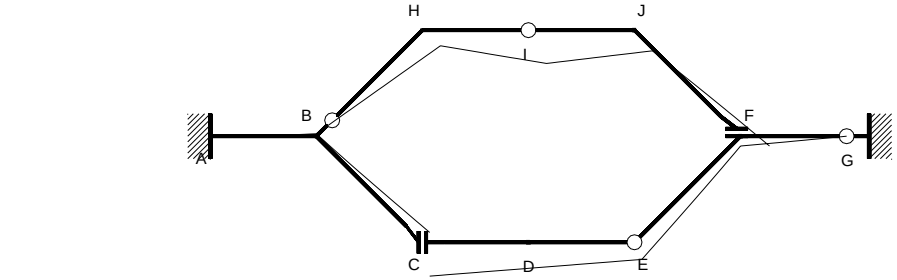
Matrice di equilibrio

$$\begin{array}{c} \\ \varphi_{BH} \\ \varphi_{IH} \\ u_{FJ} \\ \varphi_{ED} \end{array} \begin{bmatrix} H_Gb & V_Gb & H_{CB}b & W_{CB} \\ 0 & 5 & -1 & -1 \\ 1 & 3 & -2 & -1 \\ 1 & 0 & -1 & 0 \\ 0 & 0 & 0 & -1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 1 & -1 & 13/2 \\ -4 & -1 & 3/2 \\ -2 & 0 & 0 \\ 0 & 0 & 1/2 \end{bmatrix}$$

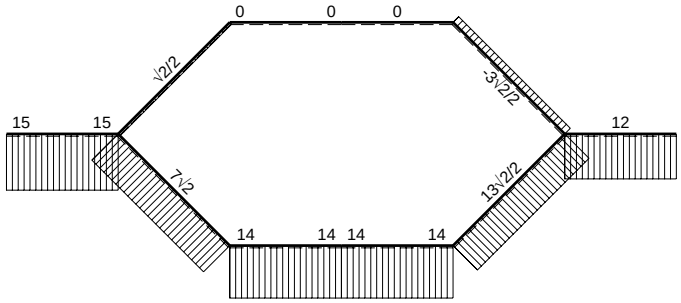
Soluzione del sistema

$$\begin{bmatrix} V_Gb \\ H_Gb \\ H_{CB}b \\ W_{CB} \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 3/2 & 0 & 5/2 \\ 9/2 & 1 & 13/2 \\ 13/2 & 1 & 13/2 \\ 0 & 0 & -1/2 \end{bmatrix}$$





200 Fb^3/EJ



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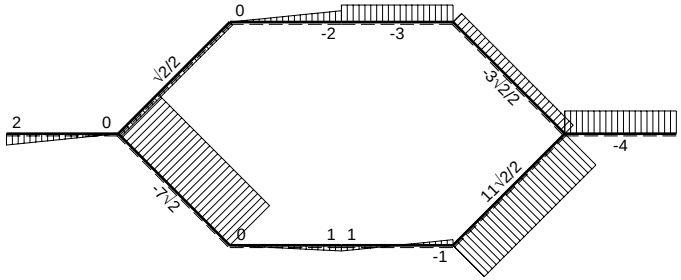

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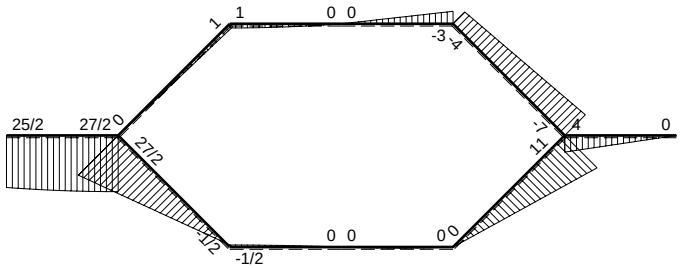

Fb

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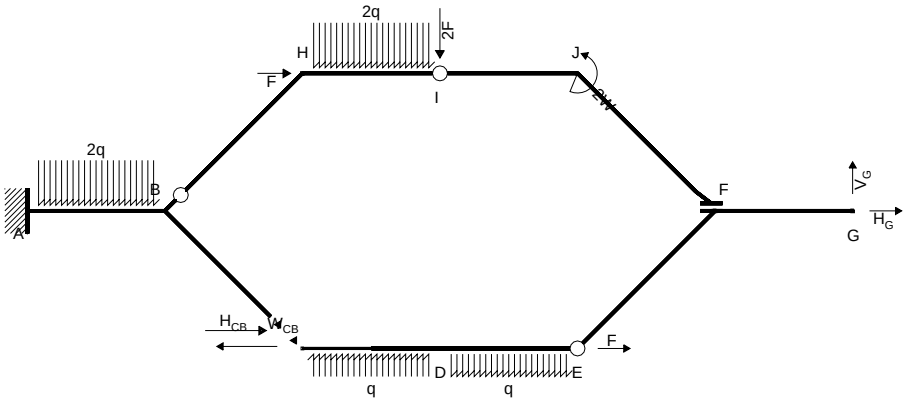


EQUAZIONI DI EQUILIBRIO

Rotazione intorno a B: aste BH HI IJ JF FE FG ED DC

$5V_Gb - H_{CB}b - W_{CB} = 4Fb - 2W + 4qb^2$

Rotazione intorno a I: aste IJ JF FE FG ED DC

$H_Gb + 3V_Gb - 2H_{CB}b - W_{CB} = -2Fb - 2W + qb^2$

Traslazione orizzontale: aste FE FG ED DC

$H_G - H_{CB} = -F$

Rotazione intorno a E: aste ED DC

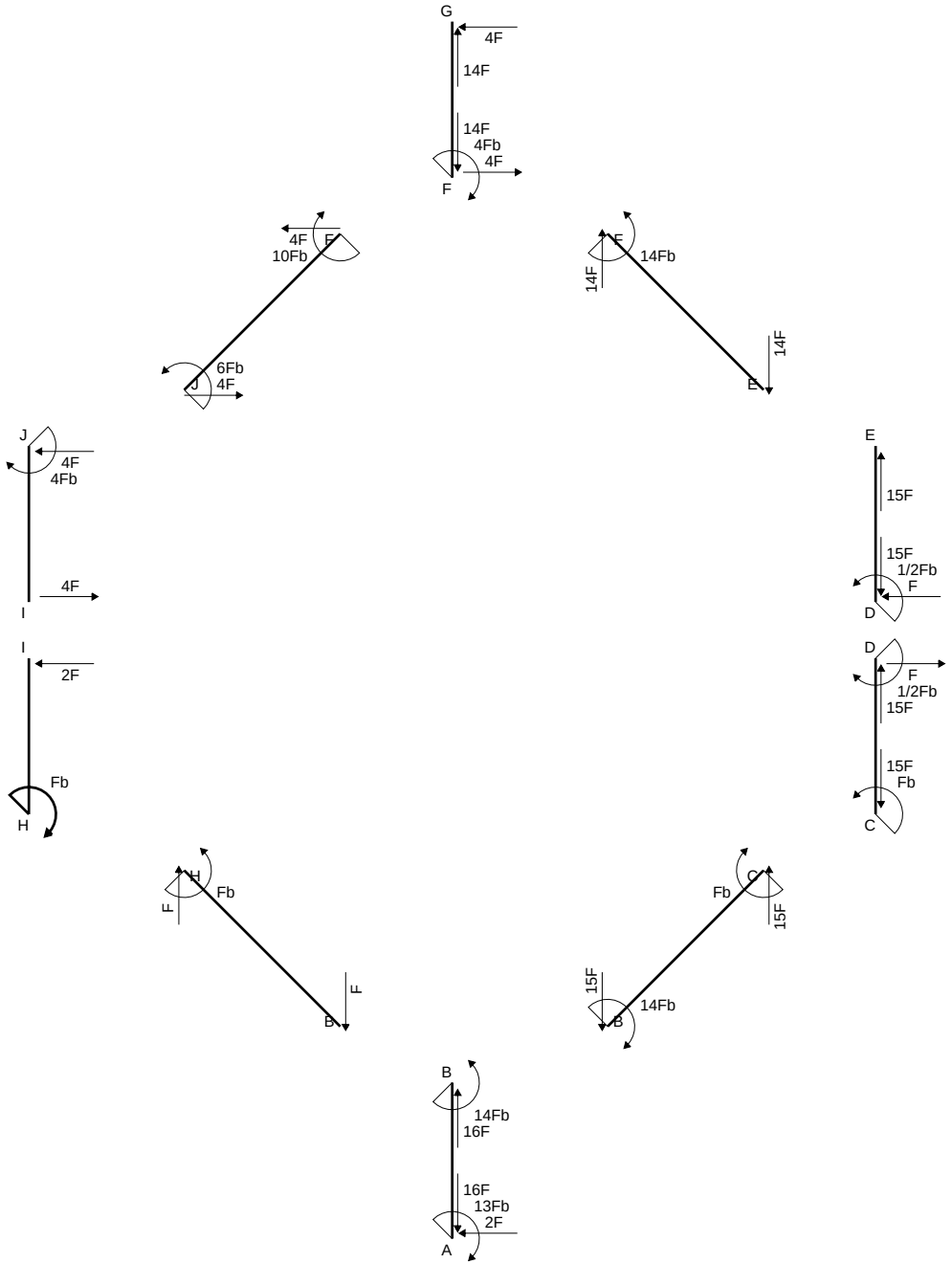
$-W_{CB} = qb^2$

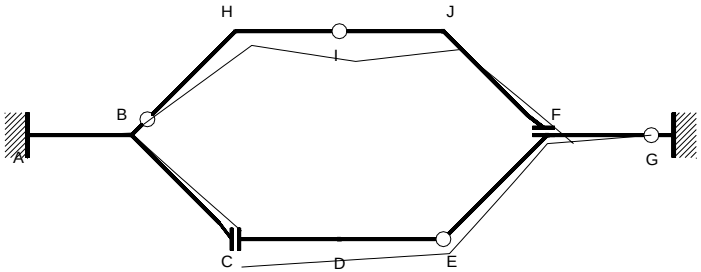
Matrice di equilibrio

$$\begin{array}{c} \\ \varphi_{BH} \\ \varphi_{IH} \\ u_{FJ} \\ \varphi_{ED} \end{array} \begin{bmatrix} H_Gb & V_Gb & H_{CB}b & W_{CB} \\ 0 & 5 & -1 & -1 \\ 1 & 3 & -2 & -1 \\ 1 & 0 & -1 & 0 \\ 0 & 0 & 0 & -1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 4 & -2 & 4 \\ -2 & -2 & 1 \\ -1 & 0 & 0 \\ 0 & 0 & 1 \end{bmatrix}$$

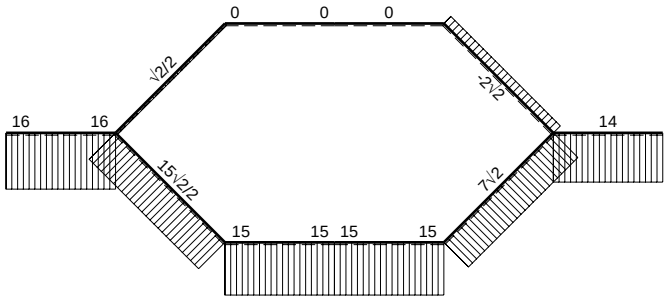
Soluzione del sistema

$$\begin{bmatrix} V_Gb \\ H_Gb \\ H_{CB}b \\ W_{CB} \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 5/2 & 0 & 3/2 \\ 15/2 & 2 & 9/2 \\ 17/2 & 2 & 9/2 \\ 0 & 0 & -1 \end{bmatrix}$$





250 Fb^3/EJ



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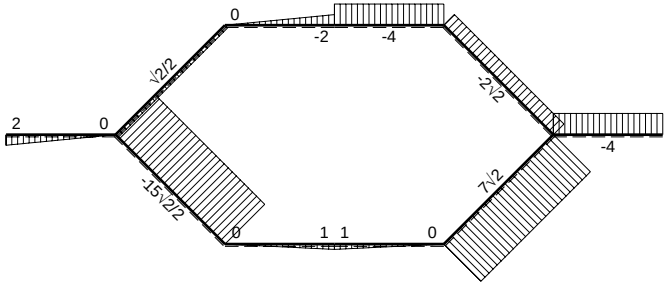

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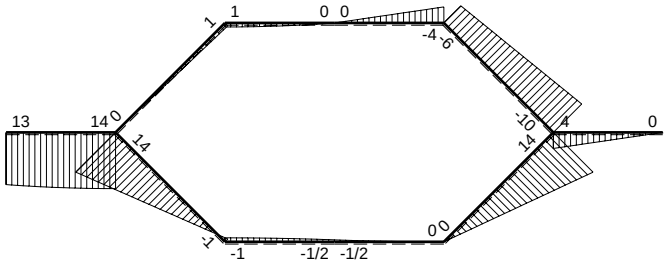

Fb

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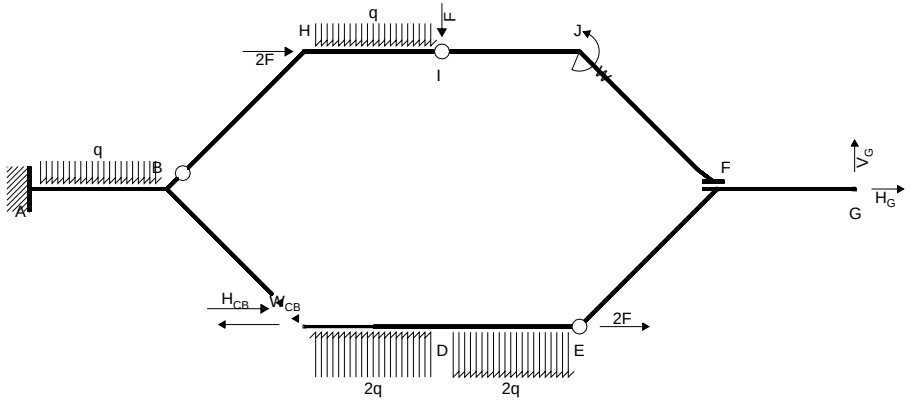


EQUAZIONI DI EQUILIBRIO

Rotazione intorno a B: aste BH HI IJ JF FE FG ED DC

$5V_Gb - H_{CB}b - W_{CB} = 2Fb - W + 7/2qb^2$

Rotazione intorno a I: aste IJ JF FE FG ED DC

$H_Gb + 3V_Gb - 2H_{CB}b - W_{CB} = -4Fb - W + 2qb^2$

Traslazione orizzontale: aste FE FG ED DC

$H_G - H_{CB} = -2F$

Rotazione intorno a E: aste ED DC

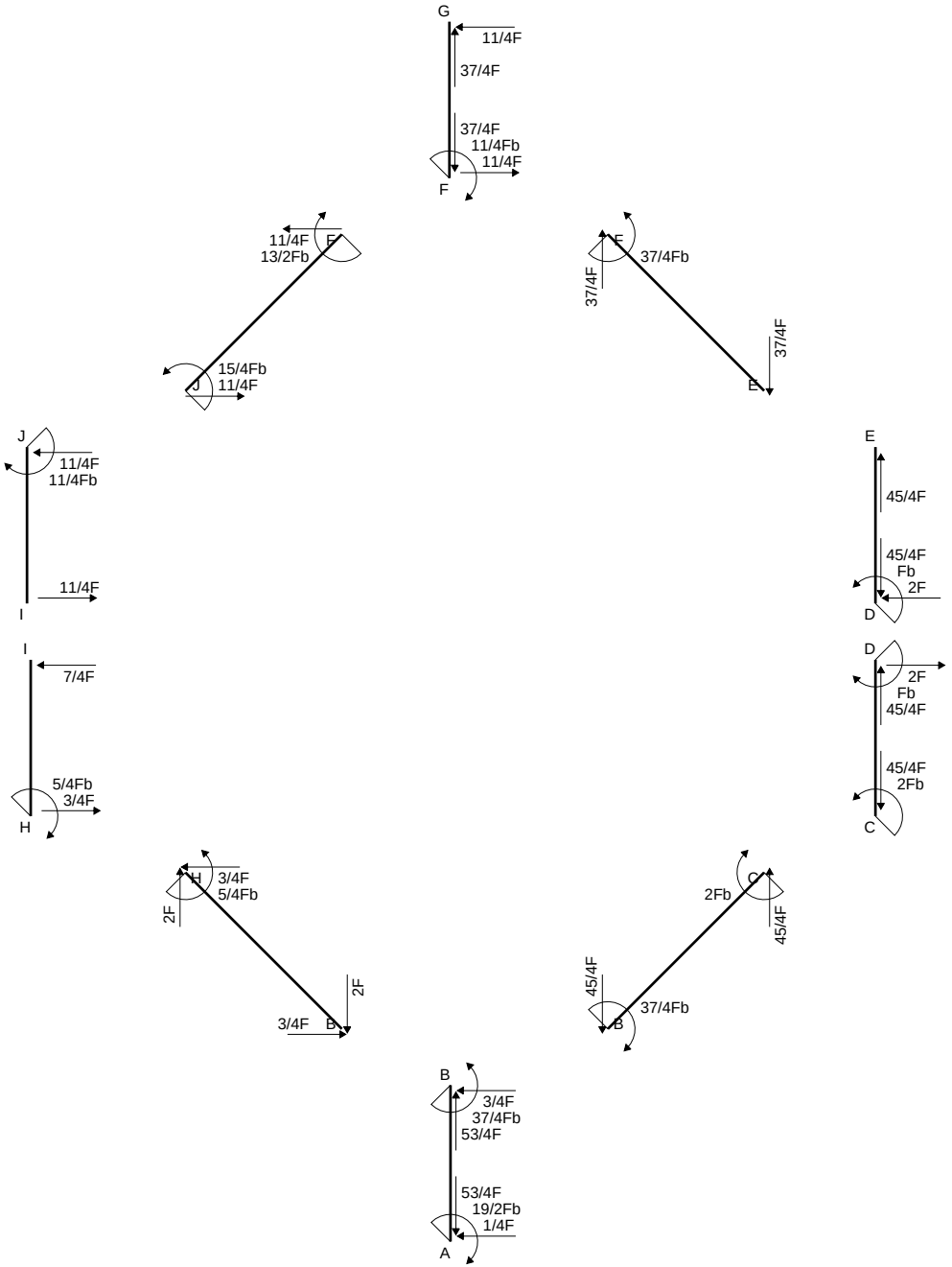
$-W_{CB} = 2qb^2$

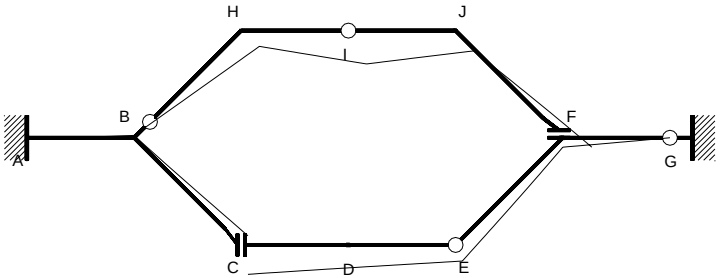
Matrice di equilibrio

$$\begin{array}{c} \\ \varphi_{BH} \\ \varphi_{IH} \\ u_{FJ} \\ \varphi_{ED} \end{array} \begin{bmatrix} H_Gb & V_Gb & H_{CB}b & W_{CB} \\ 0 & 5 & -1 & -1 \\ 1 & 3 & -2 & -1 \\ 1 & 0 & -1 & 0 \\ 0 & 0 & 0 & -1 \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 2 & -1 & 7/2 \\ -4 & -1 & 2 \\ -2 & 0 & 0 \\ 0 & 0 & 2 \end{bmatrix}$$

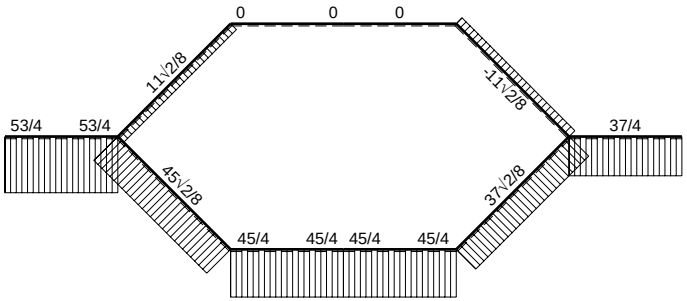
Soluzione del sistema

$$\begin{bmatrix} V_Gb \\ H_Gb \\ H_{CB}b \\ W_{CB} \end{bmatrix} = \begin{bmatrix} Fb & W & qb^2 \\ 2 & 0 & 3/4 \\ 6 & 1 & 9/4 \\ 8 & 1 & 9/4 \\ 0 & 0 & -2 \end{bmatrix}$$





150 Fb^3/EJ



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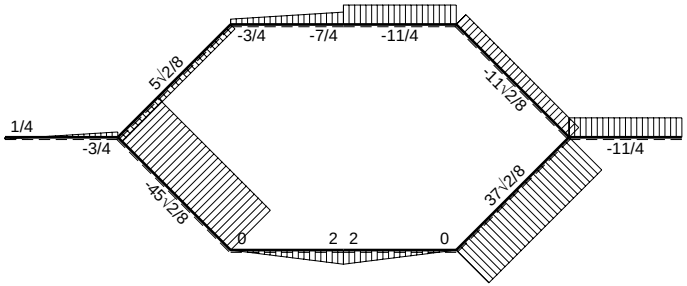

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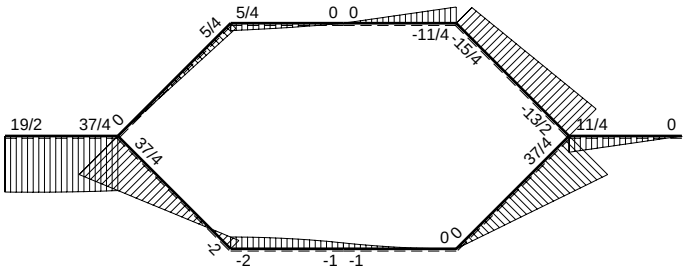

Fb

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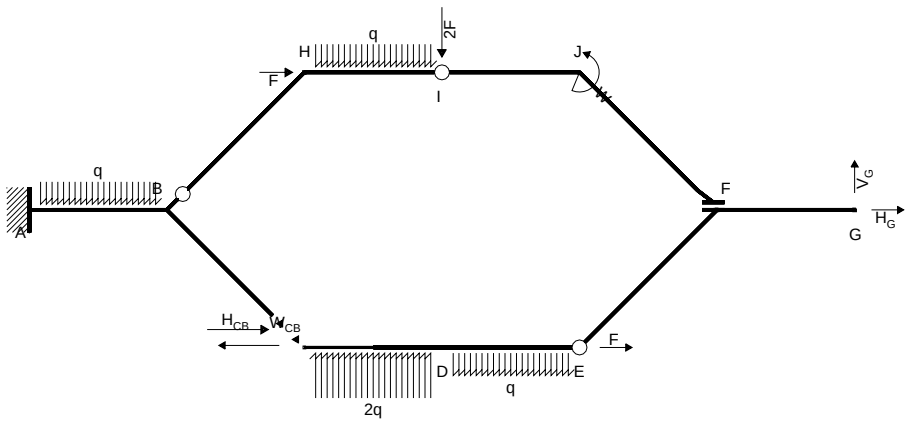


EQUAZIONI DI EQUILIBRIO

Rotazione intorno a B: aste BH HI IJ JF FE FG ED DC

$5V_Gb - H_{CB}b - W_{CB} = 4Fb - W + qb^2$

Rotazione intorno a I: aste IJ JF FE FG ED DC

$H_Gb + 3V_Gb - 2H_{CB}b - W_{CB} = -2Fb - W + 3/2qb^2$

Traslazione orizzontale: aste FE FG ED DC

$H_G - H_{CB} = -F$

Rotazione intorno a E: aste ED DC

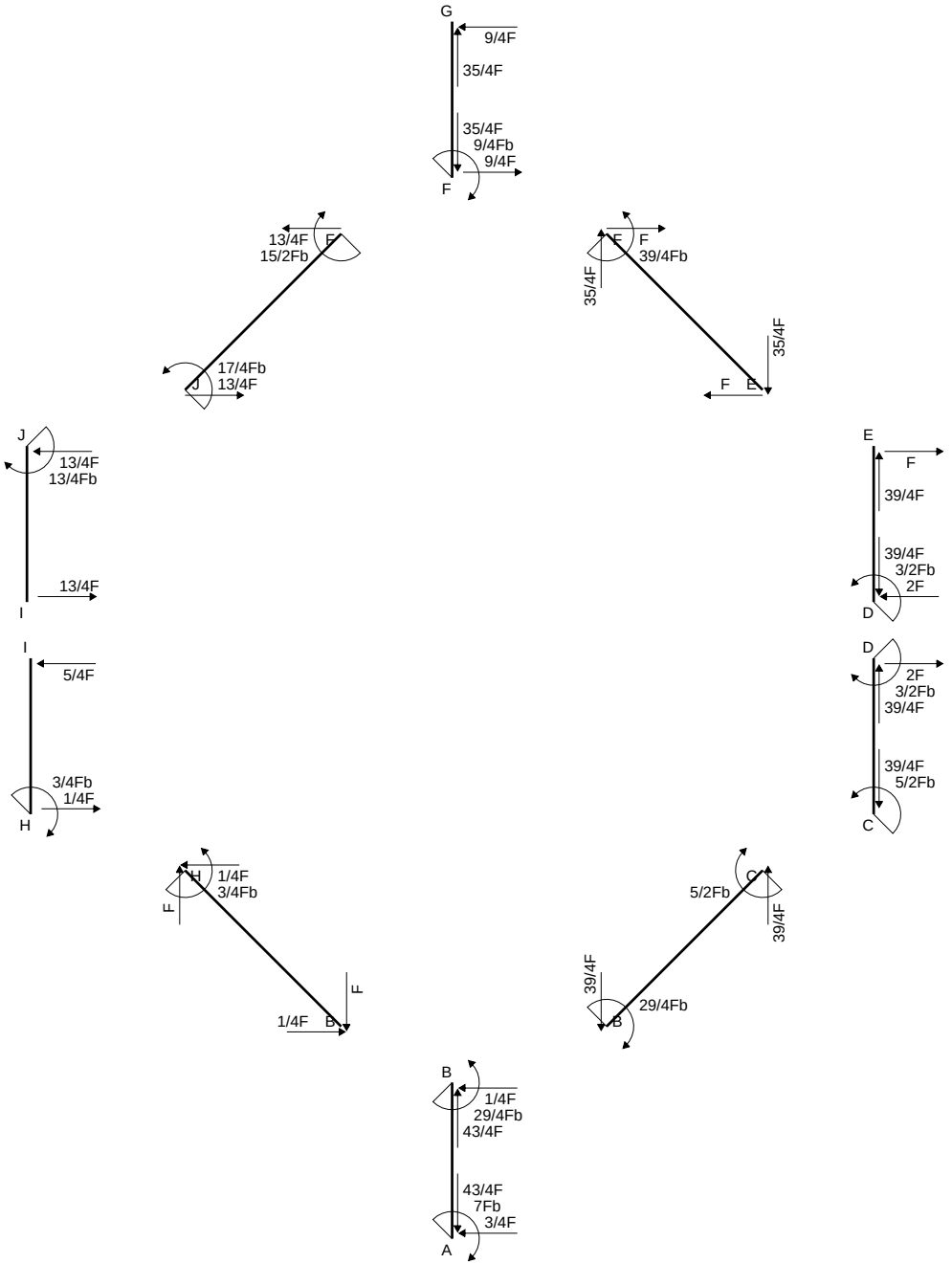
$-W_{CB} = 5/2qb^2$

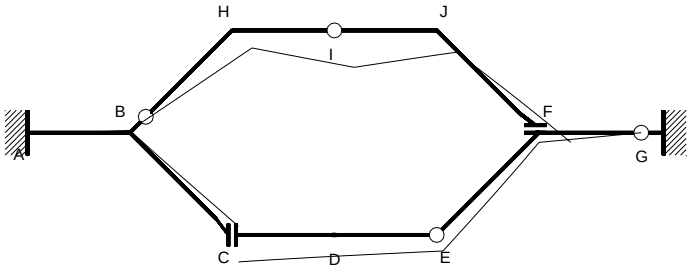
Matrice di equilibrio

	H_Gb	V_Gb	$H_{CB}b$	W_{CB}		Fb	W	qb^2
φ_{BH}	0	5	-1	-1		4	-1	1
φ_{IH}	1	3	-2	-1	=	-2	-1	3/2
u_{FJ}	1	0	-1	0		-1	0	0
φ_{ED}	0	0	0	-1		0	0	5/2

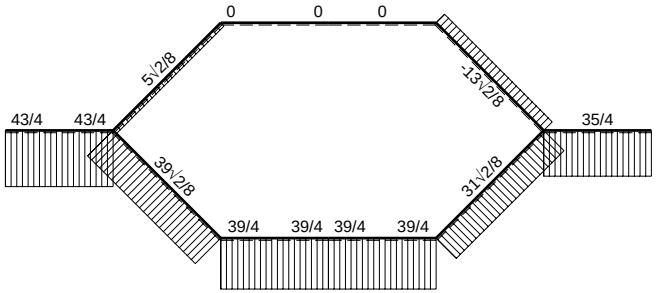
Soluzione del sistema

		Fb	W	qb^2
V_Gb		5/2	0	-1/4
H_Gb	=	15/2	1	1/4
$H_{CB}b$		17/2	1	1/4
W_{CB}		0	0	-5/2





120 Fb^3/EJ



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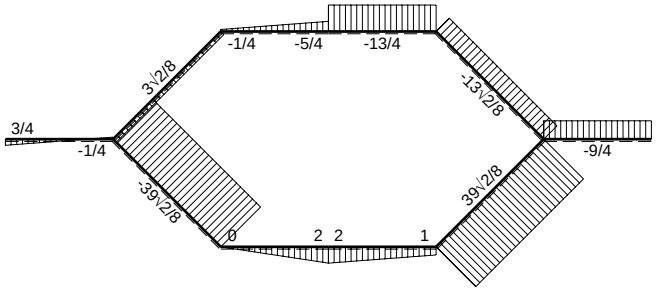

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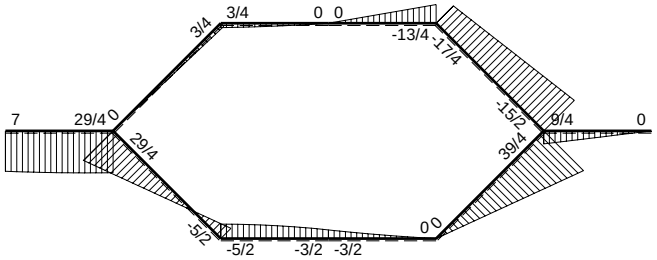

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