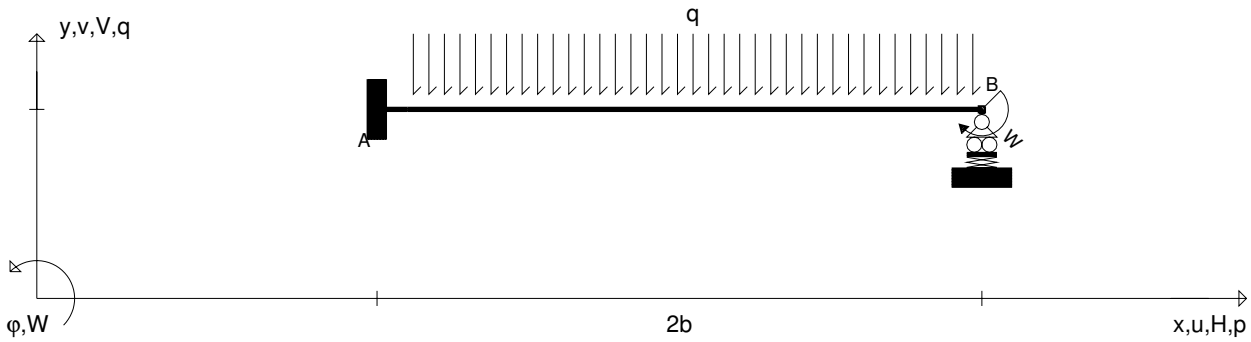
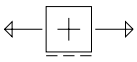
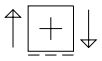
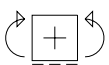


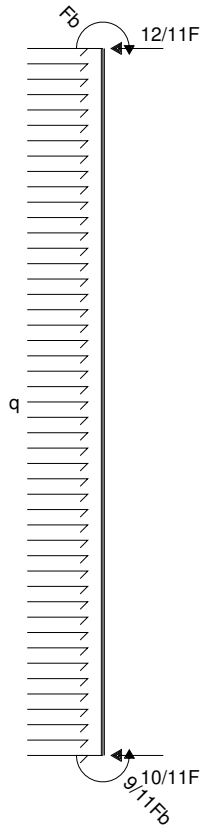
$W_B = -W = -Fb$ $q_{AB} = -q = -F/b$ $k_B = EJ/b^3$ $EJ_{AB} = EJ$

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.
Calcolare spostamento e rotazione di tutti i nodi.
u_A v_A φ_A spostamento assoluto del nodo A.
J_{AB} x_{AB} ϑ_{AB} riferimento locale asta AB con origine in A.
<> ESAME 15/01/2019 - APPELLO 01 - IPERSTATICA
<>
<> Struttura 1: Iperstatica Testo 1
<>



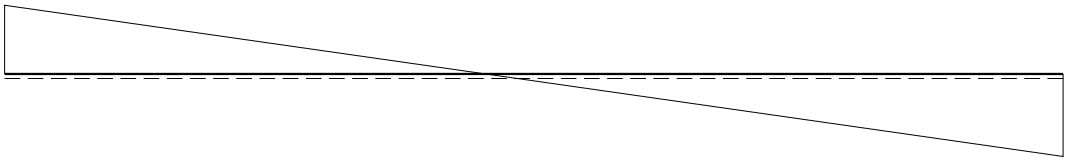


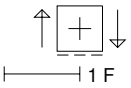


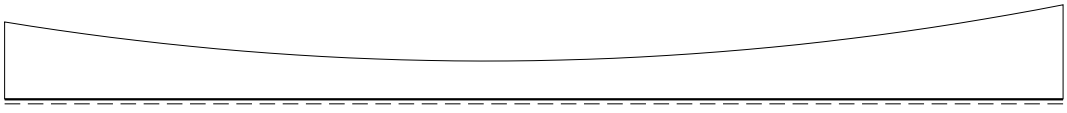

Fb
12/11F
q
10/11F
9/11Fb

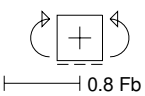

A
B


2 Fb3/EJ




1 F




0.8 Fb

REAZIONI

$H_A = 0$
$V_A = -6/11(W/b) +16/11qb = 10/11F$
$W_A = -1/11W +10/11qb^2 = 9/11Fb$
$V_B = 6/11(W/b) +6/11qb = 12/11F$

$H_{AB} = 0$
$V_{AB} = -6/11(W/b) +16/11qb = 10/11F$
$W_{AB} = -1/11W +10/11qb^2 = 9/11Fb$
$H_{BA} = 0$
$V_{BA} = 6/11(W/b) +6/11qb = 12/11F$
$W_{BA} = -W = -Fb$

SPOSTAMENTI NODALI

$u_A = 0$
$v_A = 0$
$\varphi_A = 0$

$u_{BBA} = 0$
$v_B = -6/11(Wb^2/EJ) -6/11(qb^4/EJ) = -12/11(Fb^3/EJ)$
$\varphi_{BBA} = -10/11(Wb/EJ) -8/33(qb^3/EJ) = -38/33(Fb^2/EJ)$

AZIONI INTERNE (coordinate locali)

$N_{AB} = 0$
$T_{AB} = 10/11F -qx$
$M_{AB} = -9/11Fb +10/11Fx -1/2qx^2$