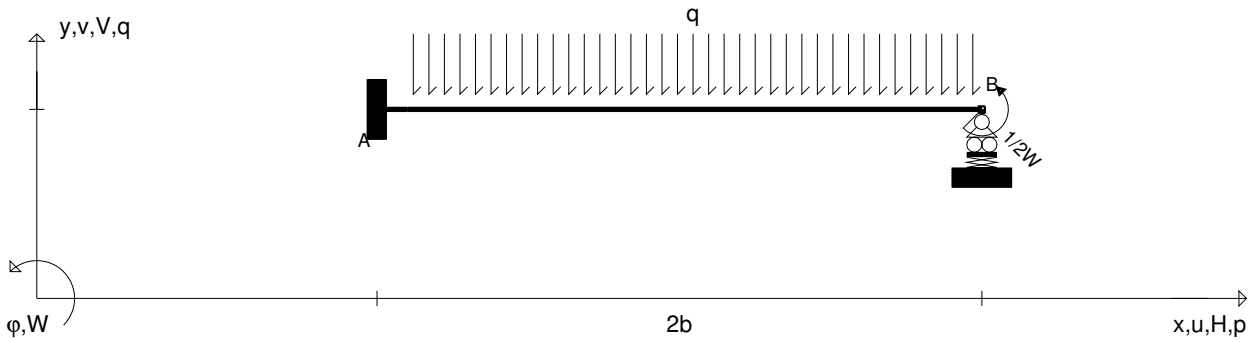
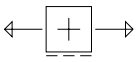
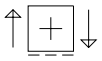
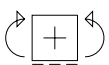


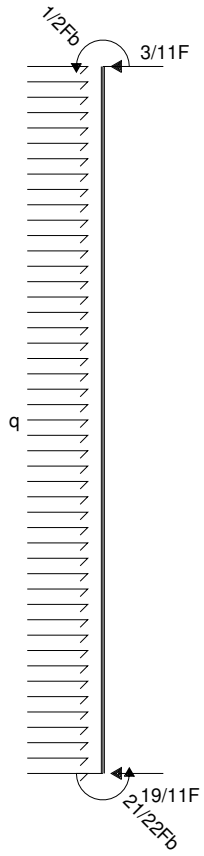
$W_B = 1/2W = 1/2Fb$ $q_{AB} = -q = -F/b$ $k_B = EJ/b^3$ $EJ_{AB} = EJ$

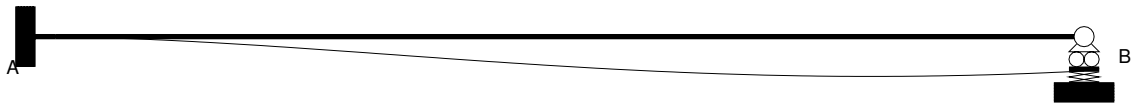
Verso effettivo dei carichi riportato nel disegno.
Calcolare reazioni vincolari della struttura e delle aste.
Tracciare i diagrammi delle azioni interne nelle aste.
Esprimere le funzioni delle azioni interne nelle aste.
Calcolare spostamento e rotazione di tutti i nodi.
$u_A\ v_A\ \varphi_A$ spostamento assoluto del nodo A.
$J_{AB}\ x_{AB}\ \vartheta_{AB}$ riferimento locale asta AB con origine in A.
<> ESAME 15/01/2019 - APPELLO 01 - IPERSTATICA
<>
<> Struttura 1: Iperstatica Testo 1
<>



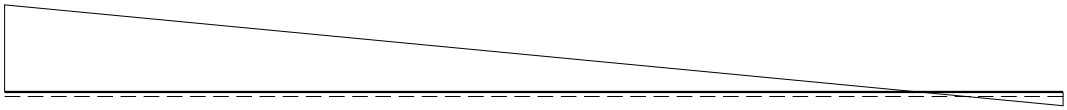


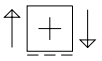



1/2Fb
3/11F
q
19/11F
21/22Fb

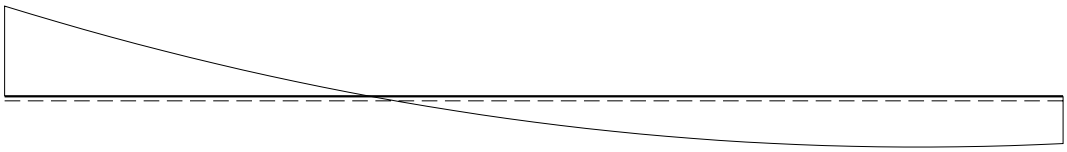


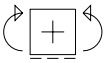
$0.6\ Fb^3/EJ$





1.5 F





0.8 Fb

REAZIONI

$H_A = 0$
$V_A = 3/11(W/b) +16/11qb = 19/11F$
$W_A = 1/22W +10/11qb^2 = 21/22Fb$
$V_B = -3/11(W/b) +6/11qb = 3/11F$

$H_{AB} = 0$
$V_{AB} = 3/11(W/b) +16/11qb = 19/11F$
$W_{AB} = 1/22W +10/11qb^2 = 21/22Fb$
$H_{BA} = 0$
$V_{BA} = -3/11(W/b) +6/11qb = 3/11F$
$W_{BA} = 1/2W = 1/2Fb$

SPOSTAMENTI NODALI

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

$u_{BBA} = 0$
$v_B = 3/11(Wb^2/EJ) -6/11(qb^4/EJ) = -3/11(Fb^3/EJ)$
$\varphi_{BBA} = 5/11(Wb/EJ) -8/33(qb^3/EJ) = 7/33(Fb^2/EJ)$

AZIONI INTERNE (coordinate locali)

$N_{AB} = 0$
$T_{AB} = 19/11F -qx$
$M_{AB} = -21/22Fb +19/11Fx -1/2qx^2$