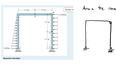
Esercitazione roma 29/11/2024

Anna Di Ianni

Asta di mezzo



$R_{Ax} + R_{Bx} = 0$

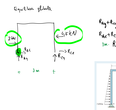
$R_{Ay} + R_{By} = 0$

$\Rightarrow \sum R_{ix} = 0$ $\quad R_{Ax} - R_{Bx} + 8\,kN = 0$

$\Rightarrow \sum R_{iy} = 0$ $\quad R_{Ay} + R_{By} - 8,8\,kN = 0$

$$\boxed{\Rightarrow \sum R_{iy} = 0 \quad R_{Ay} + R_{By} = 8,8\,kN}$$

Equilibrio globale



$R_{Ay} + R_{By} = 0$

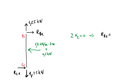
$R_{Ay} + R_{By} + 2\,kN - 6,6\,kN = 0 \rightarrow$

$\Rightarrow R_{By} = 4,6\,kN - 2\,kN = 2,6\,kN \rightarrow$

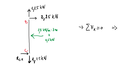
$\Rightarrow R_{By} = \frac{2,6\,kN \cdot 1\,m}{3\,m} = \frac{2,6}{3}\,kN = 0,87\,kN$

$\Downarrow$

$R_{Ay} = \frac{-2,6\,kN \cdot 2\,m}{3\,m} = -1,73\,kN$



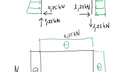
$2\,kN = \Rightarrow R_{Ax} = \frac{2\,kN}{1\,m} = 2\,kN$ ✓



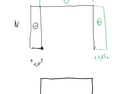
$\rightarrow \sum R_{ix} = 0 \quad \Rightarrow \quad R_{Ax} = (8,8 - 2,6)\,kN = 7,2\,kN$ ✓

$\frac{-6,6 \cdot 3 + 8,8 \cdot 1 \cdot 3 - 3 \cdot 1}{1 \cdot 3} = -3,1\,kN$ ✓

Asta di mezzo



N

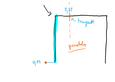


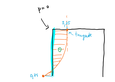
$R_{Ay} = 4$

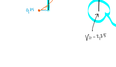
$\frac{dV}{dx} = q = 0$

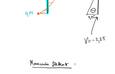
$\frac{dV}{dx} = 0$

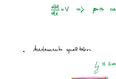
V produce
(3 parabole)
per biscezione il
diagramma
non infiscali tre
infleszioni.

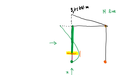


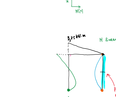








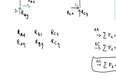




Momento flettente

- punti di nullo ($M=0$)

DIS: si può usare anche Cremona V in tutti i punti e conosco M in relazione con punti, allora,

$\frac{dM}{dx} = V \Rightarrow$ posso calcolare M in TUTTI i punti!

- Andamento qualitativo