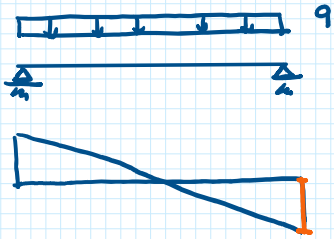
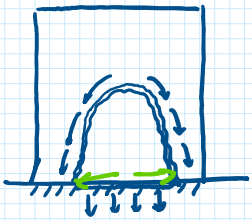
Taglio

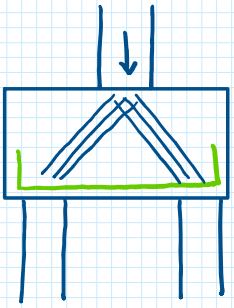
giovedì 21 maggio 2026 07:35

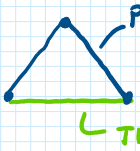


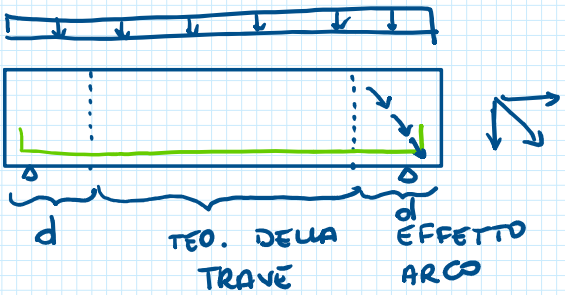
TEO. DI DE SAINT VENANT:

- ASTE SNELLE
- LONTANO DA F CONCENTRATE

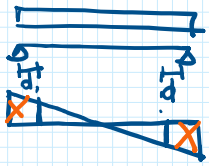




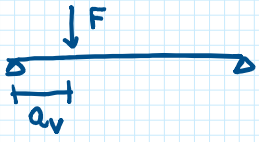




PER CARICHI DISTRIBUITI => V a distanza "d" dal vincolo



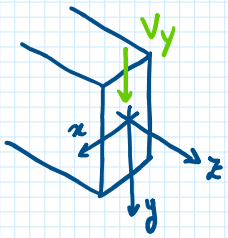
IN PRESENZA DI F =>



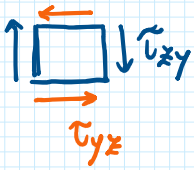
Se $a_v \leq 2d$ => $V_{Ed} = F \frac{a_v}{2d}$

se $a_v > 2d \Rightarrow V_{Ed} = F$

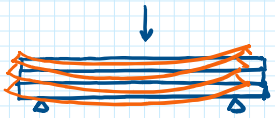
SEZ. ELASTICO LINEARE OMOGENEA

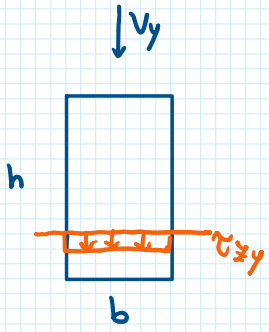


$V_y \Rightarrow \tau_{zy} \Rightarrow \int \tau_{zy}\, dA = V_y$



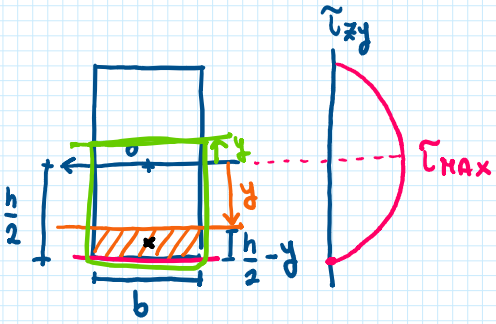
FORZA DI SCORRIMENTO





$$\tau_{zy} = \frac{V_y\, S_x}{b\, I_x}$$ FORMULA di JOURAWSKY

$$I_x = \frac{bh^3}{12}$$



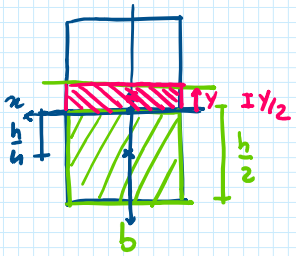
$$S_x = b\left(\frac{h}{2} - y\right)\left[\frac{1}{2}\left(\frac{h}{2} - y\right) + y\right]$$

$$S_x = b\left(\frac{h}{2} - y\right)\left(\frac{h}{4} + \frac{y}{2}\right)$$

$$S_x = \frac{b}{2}\left(\frac{h}{2} - y\right)\left(\frac{h}{2} + y\right)$$

$$S_x = \frac{b}{2}\left(\frac{h^2}{4} - y^2\right)$$

$$S_x = \underbrace{b\,\frac{h}{2}\,\frac{h}{4}}_{b\frac{h^2}{8}} - \frac{b\,y^2}{2}$$

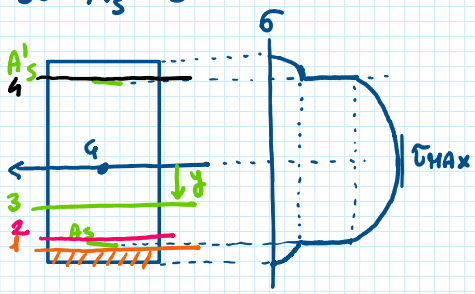


3

b

I STADIO

SE $A'_s = A_s$



$$\tau_{xy} = \frac{V_y S_x}{b I_x}$$

$I_x \rightarrow A_a = bh + m(A'_s + A_s)$

$d_{asup} = d_{ainf} = \frac{h}{2}$

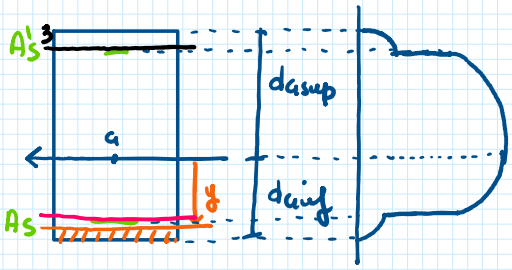
$$I_x = \frac{bh^3}{12} + m A'_s \left(\frac{h}{2} - c\right)^2 + m A_s \left(\frac{h}{2} - c\right)^2$$

1) $S_x = \frac{b}{2}\left(\frac{h^2}{4} - y^2\right)$

2) $S_x = \frac{b}{2}\left(\frac{h^2}{4} - y^2\right) + mA_s\left(\frac{h}{2} - c\right) = 3)$

4) $S_x = \frac{b}{2}\left(\frac{h^2}{4} - y^2\right) + mA_s\left(\frac{h}{2} - c\right) - mA'_s\left(\frac{h}{2} - c\right)$

SE $A'_s < A_s$



$A_{ci} = bh + m(A'_s + A_s)$

$d_{Gsup} = \frac{S_{sup}}{A_{ci}}$ $\quad d_{ainf} = h - d_{asup}$

$S_{sup} = \frac{bh^2}{2} + mA'_s c + mA_s d$

$$I_x = b\frac{d_{Gsup}^3}{3} + b\frac{d_{ainf}^3}{3} + mA'_s\left(d_{asup} - c\right)^2 + mA_s\left(d_{inf} - c\right)^2$$

1) $S_x = b\left(d_{ainf} - y\right)\left[\left(\frac{d_{ainf} - y}{2}\right) + y\right]$

$S_x = \frac{b}{2}\left(\frac{d_{ainf}^2}{4} - y^2\right)$

2) $S_x = \frac{b}{2}\left(\frac{d_{ainf}^2}{4} - y^2\right) + mA_s\left(d_{ainf} - c\right)$

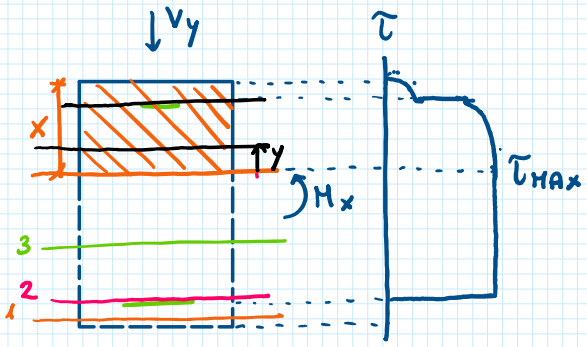
3) $S_x = \frac{b}{2}\left(\frac{d_{ainf}^2}{4} - y^2\right) + mA_s\left(d_{ainf} - c\right) - mA'_s\left(d_{asup} - c\right)$

II STADIO

FLESSIONE SEMPLICE

$S_M(x) = 0 \Rightarrow x$

FLESSIONE SEMPLICE



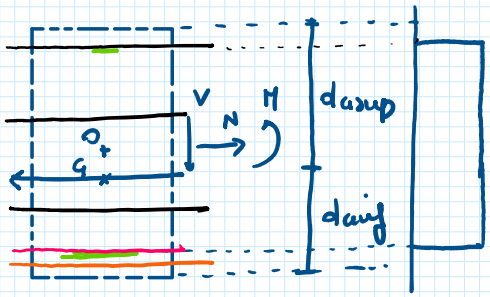
$$S_m(x) = 0 \Rightarrow x$$

$$I_m = \frac{b x^3}{3} + m A'_s (x-c)^2 + m A_s (d-x)^2$$

1) $S_x = 0$

2) $S_x = m A_s (d-x)$ = 3)

TENSOFLESSIONE - PICCOLA ECC.



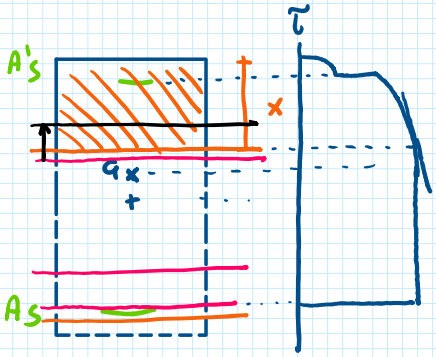
SEZ - TUTTA TESA

$$A_s = A'_s + A_s$$

$$d_{asup} = \frac{S_{sup}}{A'_s + A_s} \qquad d_{ainf} = h - d_{asup}$$

$$I_G = A'_s (d_{asup} - c)^2 + A_s (d_{ainf} - c)^2$$

TENSOFLESSIONE - GRANDE ECC.



$$l_m(x)\, S_m(x) = I_m(x)$$

↳ x

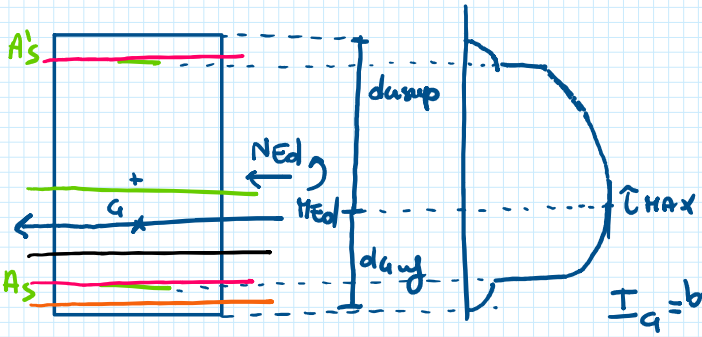
↳ $A_{ci} = \underbrace{A_{cls}}_{bx} + m(A'_s + A_s)$

↳ G DELLA SEZ. REAG. OMOG.

↳ I_G

PRESSOFLESSIONE - PICCOLA ECC.

SEZ. TUTTA COMPRESSA

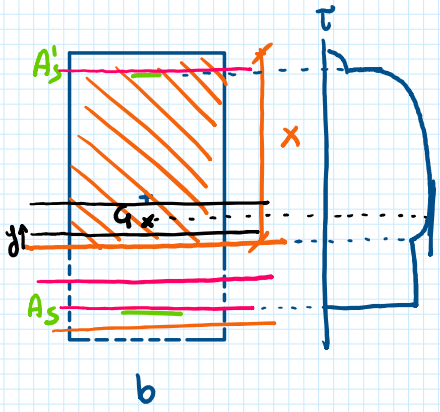


$$A_{ci} = bh + n(A'_s + A_s) \qquad n = 15$$

$$d_{asup} = \frac{S_{sup}}{A_{ci}} \qquad d_{asf} = h - d_{asup}$$

$$I_G = b\frac{d_{asup}^3}{3} + b\frac{d_{asf}^3}{3} + n A'_s (d_{asup} - c)^2 + n A_s (d_{asf} - c)^2$$

PRESSOFLESSIONE - GRANDE ECC



SEZ. REAG. OMOG.

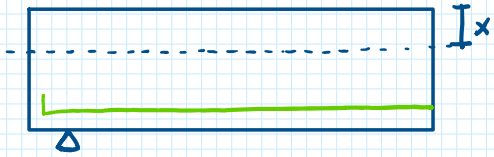
$$e_N(x)\, S_N(x) = I_N(x) \Rightarrow x$$

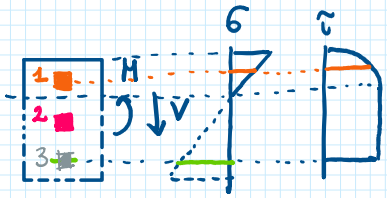
$$\tau_{MAX}\, A_{ci} = bx + n(A'_s + A_s) \qquad n = 15$$

↳ G

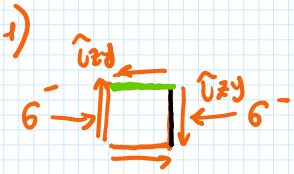
↳ I_G

II STADIO





1)



$$V(\sigma^-; \tilde{\tau}^+)$$

$$H(0; \tilde{\tau}^-)$$