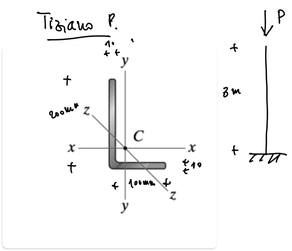
Tiziano P.

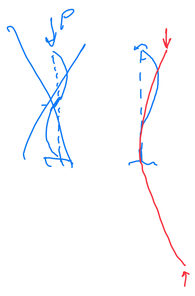


Calcolare il carico critico della colonna, individuando il piano sul quale avviene lo sbandamento.

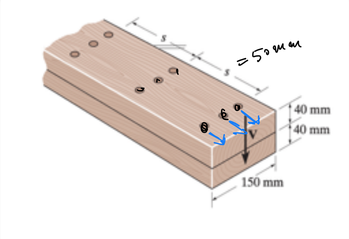
$P_{cr} = \frac{\pi^2 EI}{(kl)^2}$

$K = 0{,}5$

$kl = 1{,}5\,m$



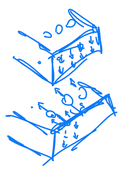
Flavio P.



Flessione e taglio

$\tau_{LEGNO} = 2.1\,MPa$

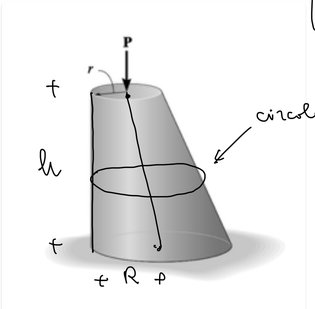
Determinare la forza di taglio massima che le tavole può sostenere.



$q = 3\frac{F}{s} =$

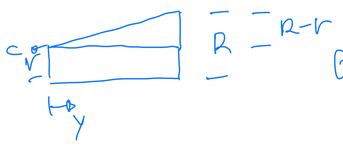
$F_{max} = 2.25\,KN$ forza di taglio massima

Michele P.



Determinare la tensione normale massima

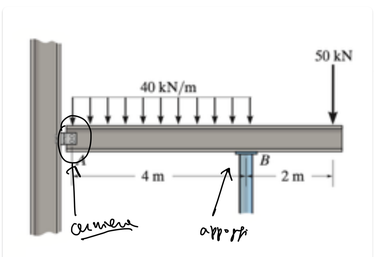
$y = r + (R-r)\cdot y$

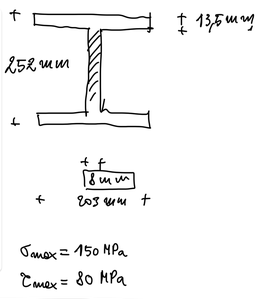


$\sigma = \frac{N(x)}{A} + \frac{M y}{I}$

$\sigma = \frac{P\cos\theta}{\pi(r+(R-r)x)^2} + \frac{P\sin\theta\, y\cdot(R-r)x\, y}{I}$

Alessio

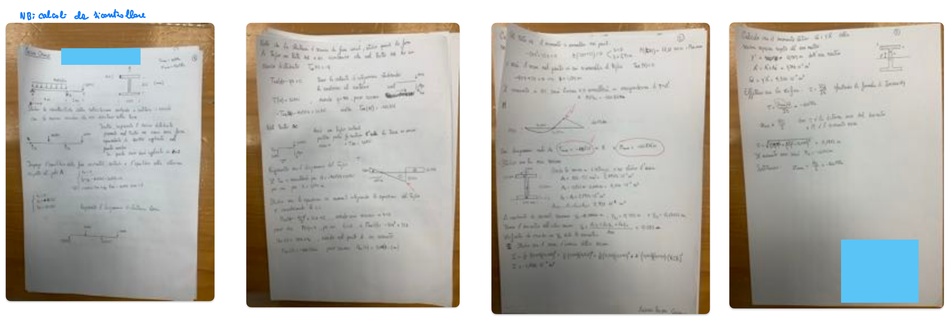




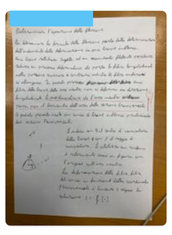
$\sigma_{max} = 150\,MPa$

$\tau_{max} = 80\,MPa$

NB: calcolati da retro in avanti



Dedurre l'equazione per la flessione $\boxed{M = EI/\rho}$



Usare la configurazione data da $\frac{1}{\rho}$ che rendere $\int_A \sigma = 0$ (se compare)

Niccolò R.

Disegnare lo schema strutturale e calcolare la funzione v in termini di x_1 e x_2

$u_1(0) = 5$

$v_2(l) = 0$

$M_2(l) = 0$

$v_1(\frac{l}{2}) = v_2(\frac{l}{2})$

Figura 16.13 (segue)

I_x

I_y

Michael

Determinare:
1) Tensioni principali
2) Direzioni principali in A

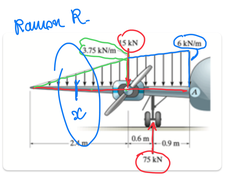
Raimondo

E = 200 GPa

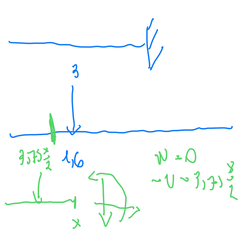
450 mm2

Determinare le tensione normale in ciascuna delle barre

Ramon R.



Tracciare i diagrammi delle CDS



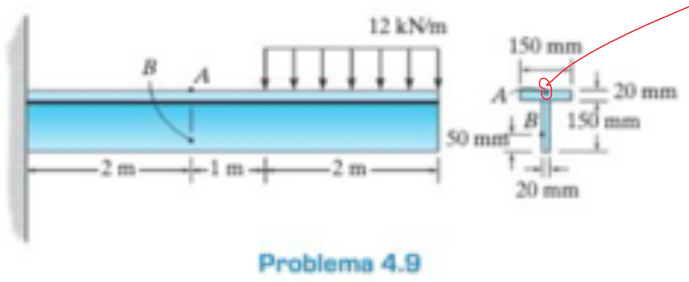
$\frac{x-0}{2,4-0} = \frac{y-3,75}{3,75-0}$ $\quad y = \frac{3,75}{2,4}x$

$N = 0$

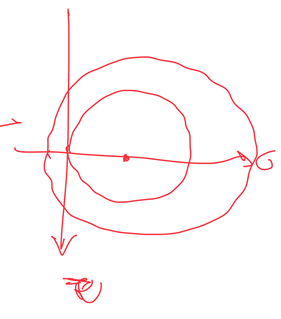
$V = 3,75\frac{x}{l}$ $\quad V = -3,75\frac{x}{l}$

DAVIDE V.

4.9. La trave con sezione a "T" è soggetta all'azione del carico distribuito applicato lungo l'asse baricentrico. Si determinino le tensioni principali nei punti A e B e si mostrino graficamente i risultati su elementi collocati in ciascuno dei due punti.

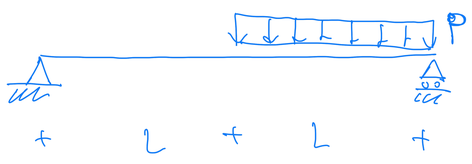


Problema 4.9



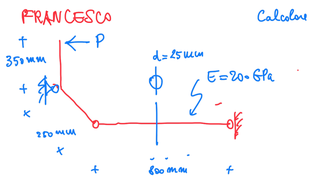
Gabriel C.

Disegnare i diagrammi delle CdS

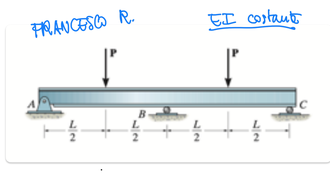


FRANCESCO

Calcolare il carico critico.



FRANCESCO R.

EI costante

Tracciare i diagrammi delle CdS.