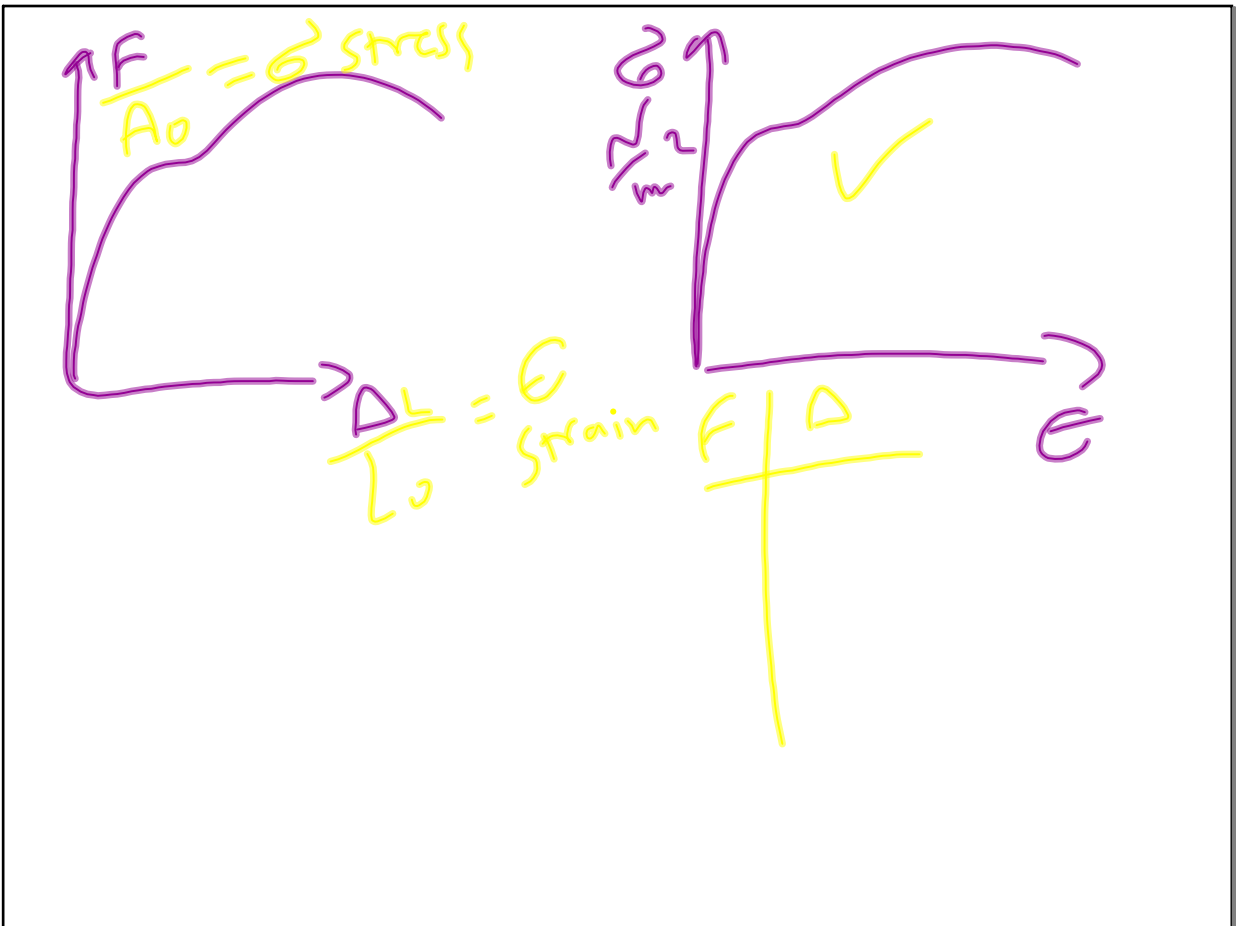
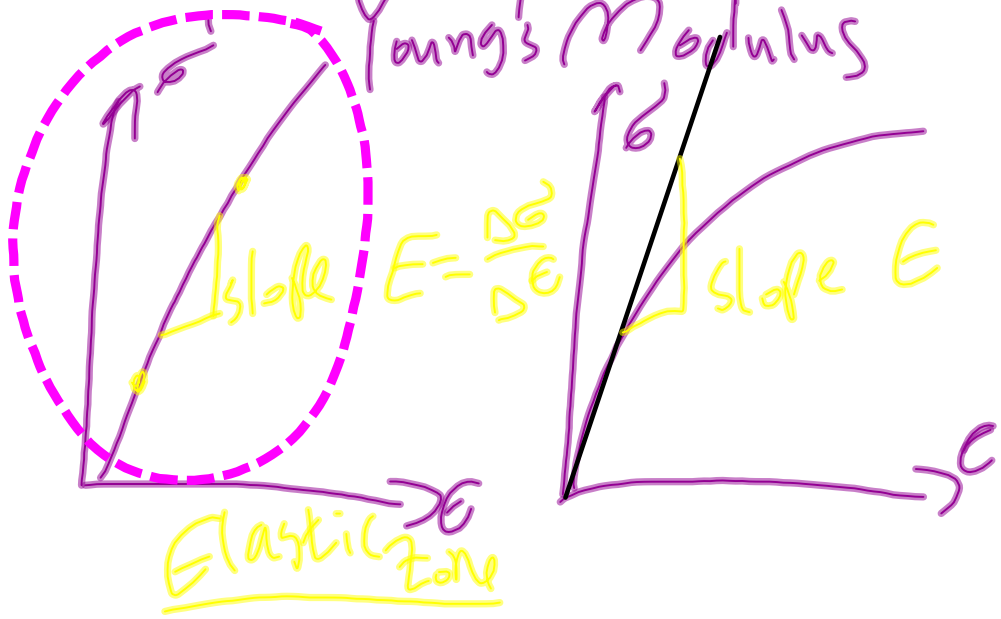


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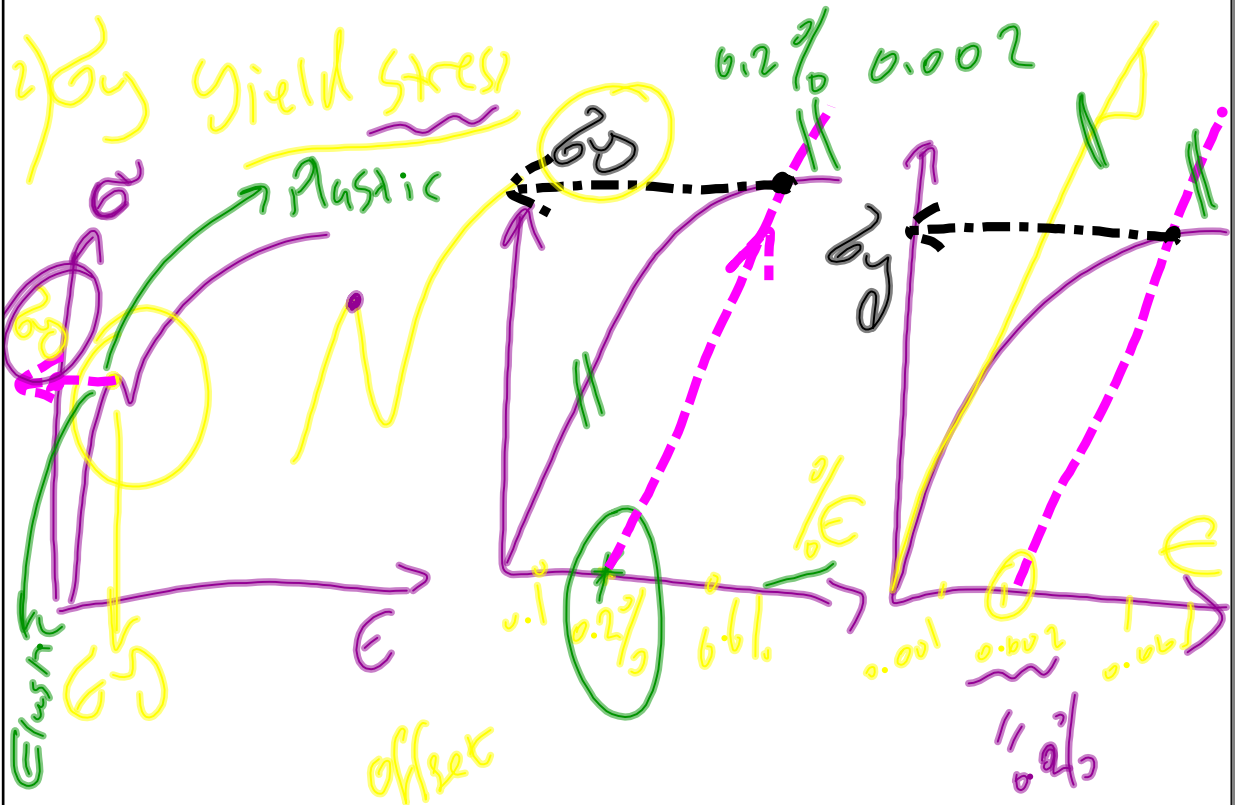


Oct 8-4:21 PM

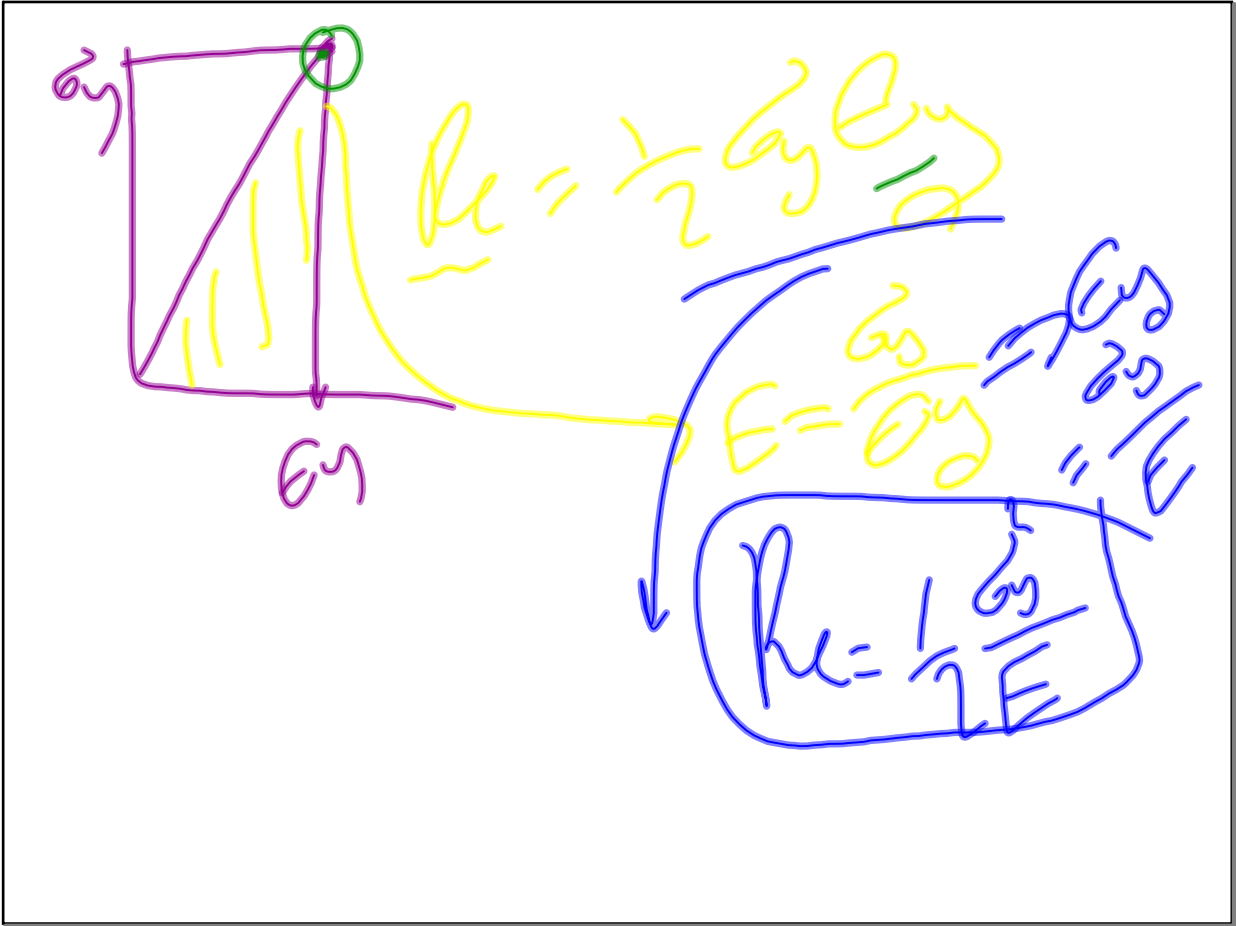
1- E Modulus of Elasticity or Young's Modulus



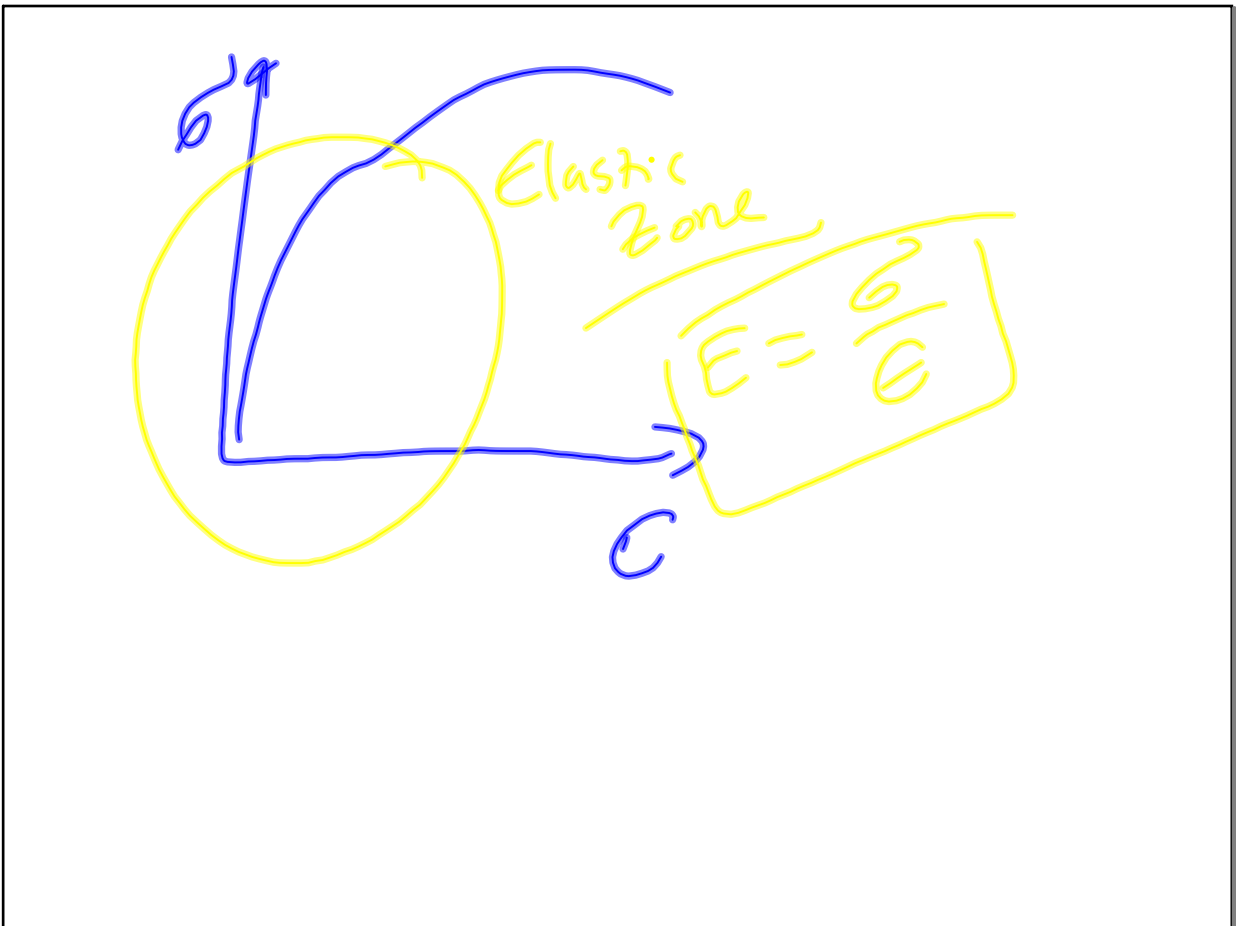
Oct 8-4:23 PM



Oct 8-4:30 PM



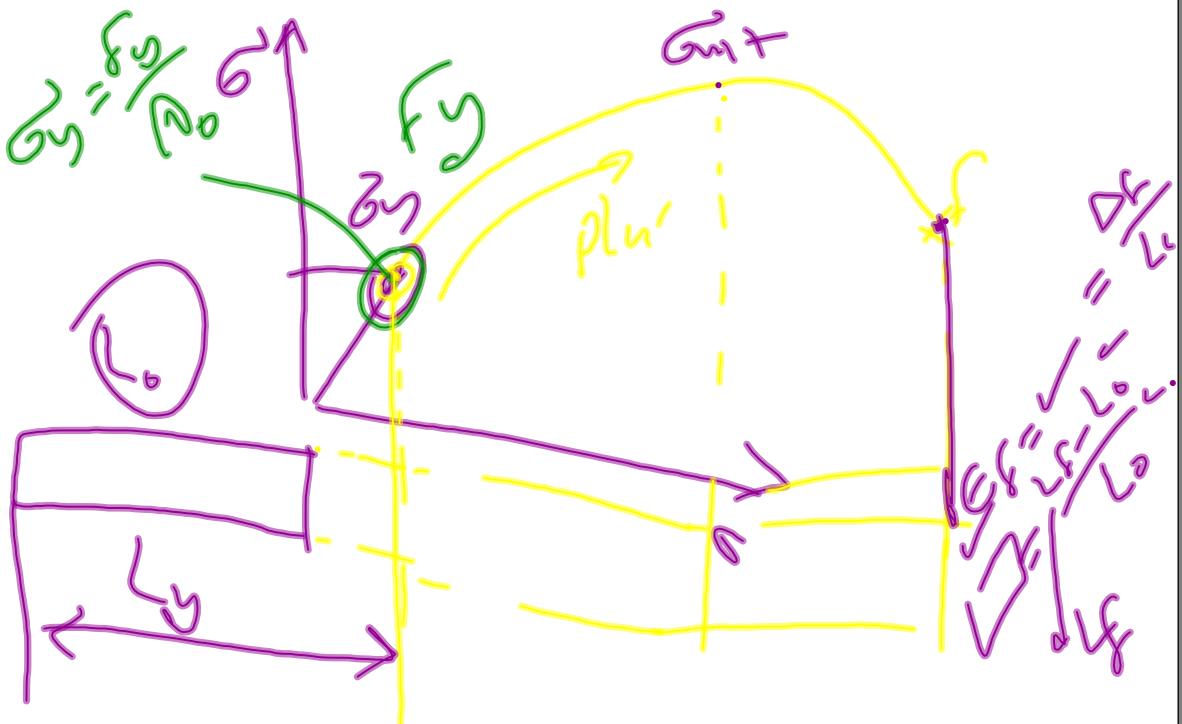
Oct 8-4:57 PM



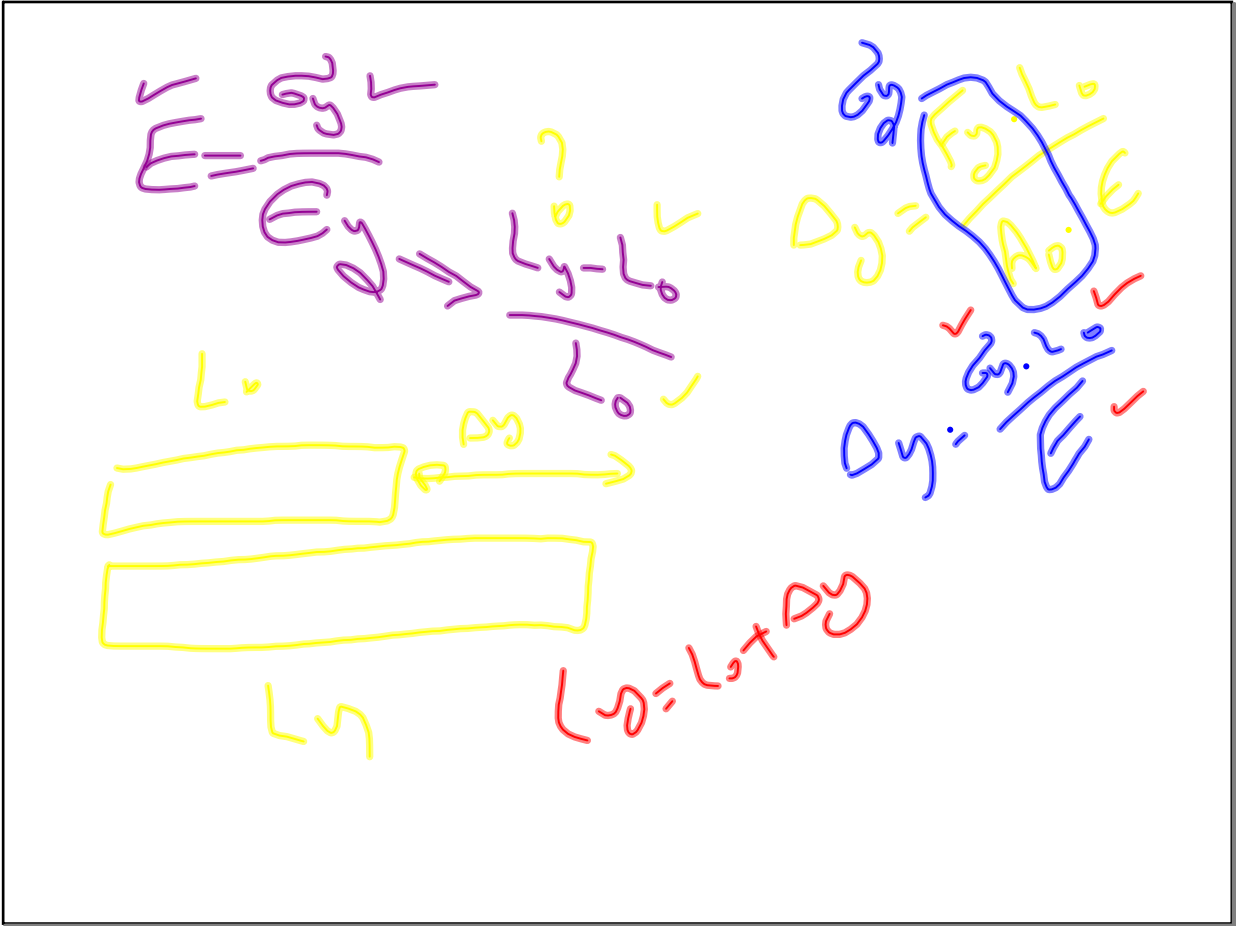
Oct 8-5:16 PM

max. length before deformation

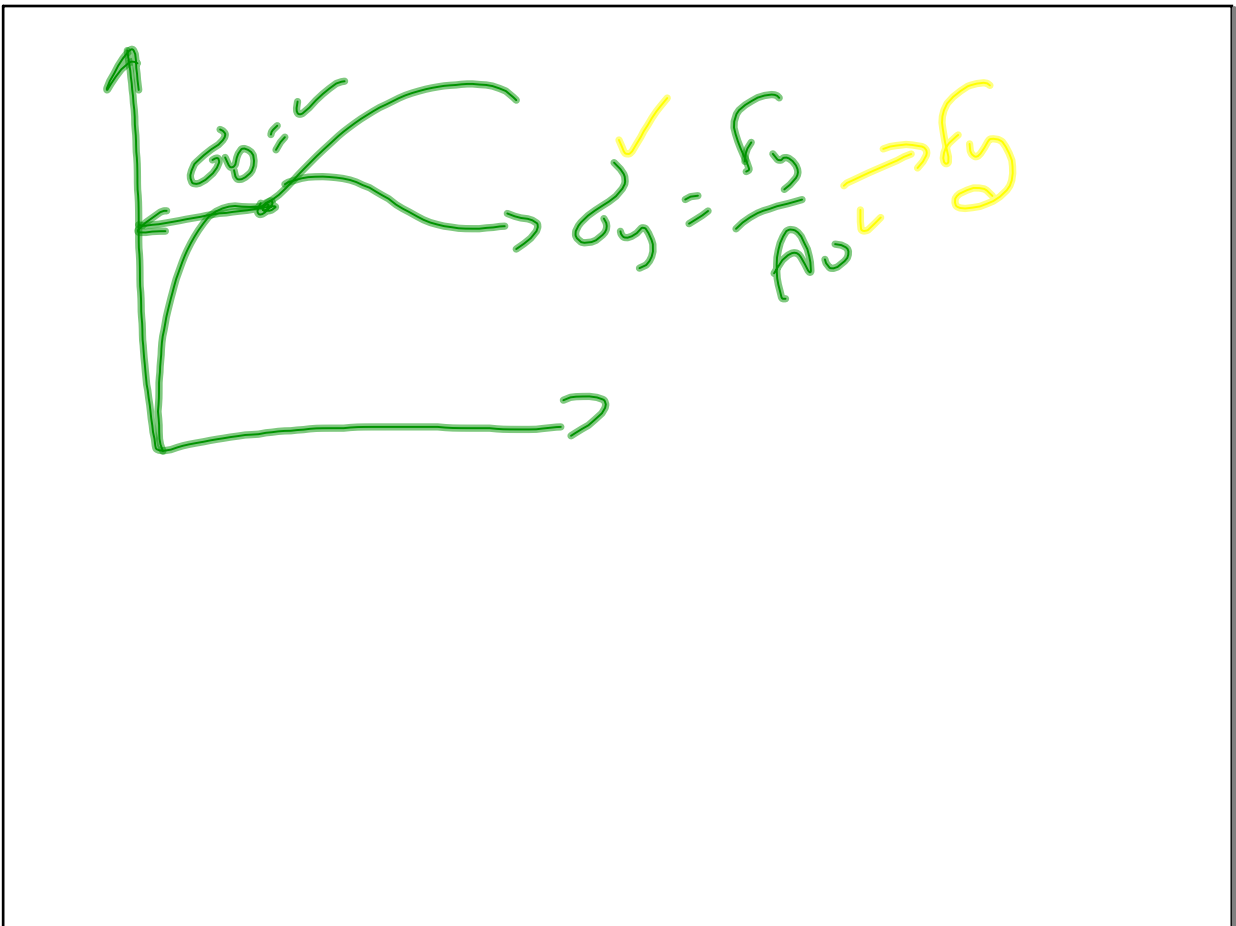
Oct 8-5:20 PM



Oct 8-5:21 PM



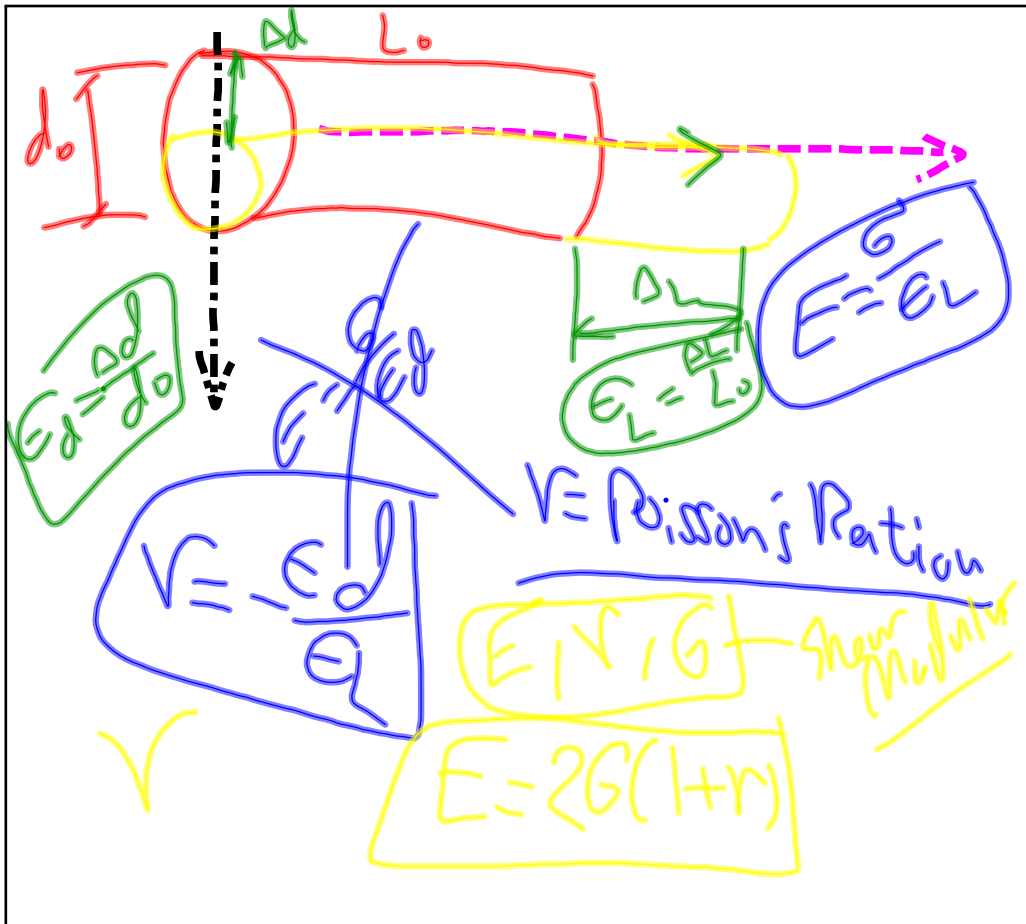
Oct 8-5:39 PM



Oct 8-5:36 PM

T.6.1
 E
 G
 ν

Oct 8-5:45 PM



Oct 8-5:46 PM

$$\Delta L = \frac{F \cdot L_0}{A_0 \cdot E}$$

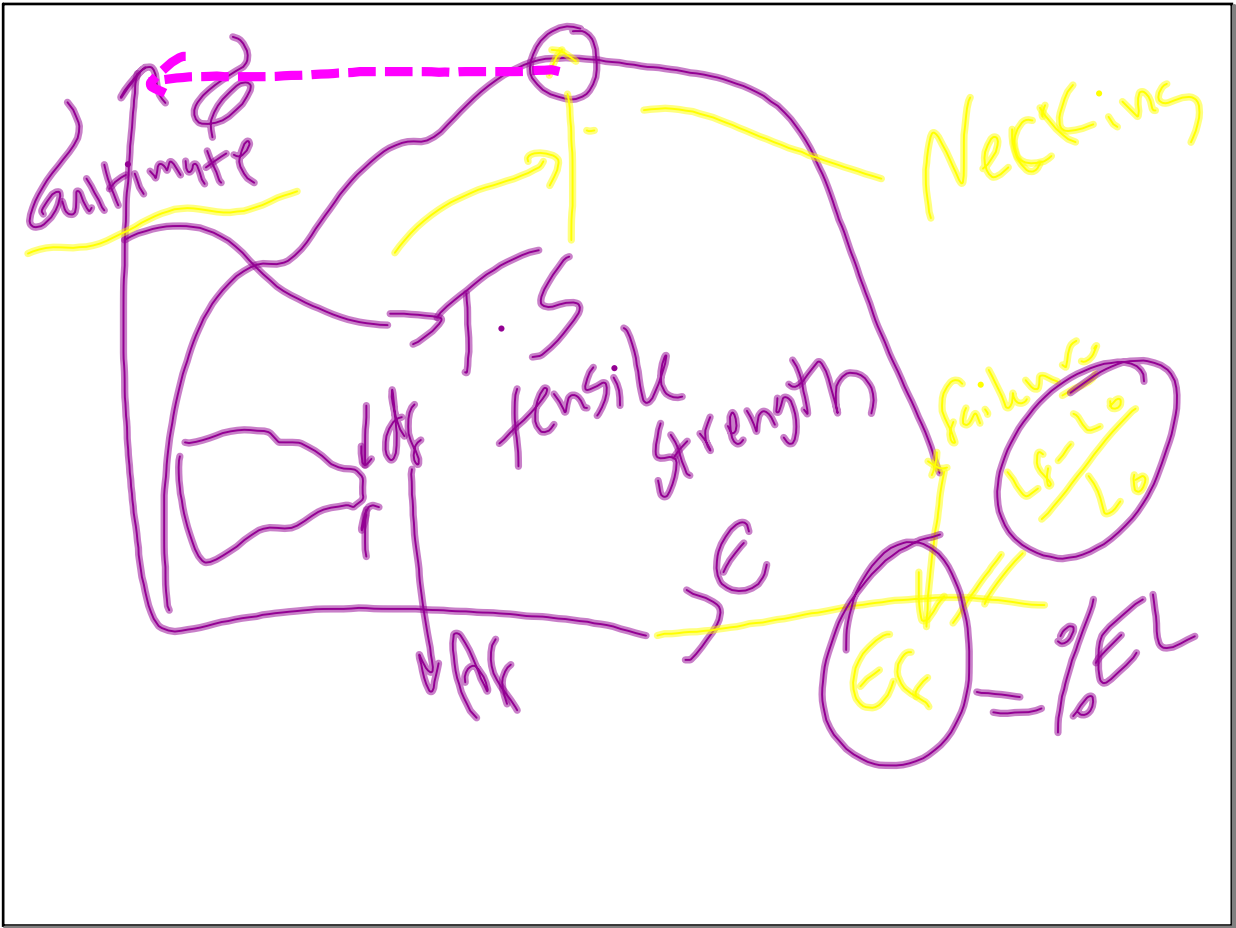
$A_0 \cdot E \rightarrow T \cdot G$
 $\Delta d = ?$
 $\frac{T \cdot G}{E} = \frac{\Delta d}{d_0}$
 $\nu = -\frac{\Delta L}{L_0} = \frac{\Delta d}{d_0} \rightarrow \Delta d = (\nu)$
 $G = ?$
 $E = 2G(1 + \nu)$

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$L_0 = ?$
 $F = \checkmark$
 $\Delta L = \checkmark$
 $E = \checkmark$
 $d_0 = \checkmark$

$E = \frac{\sigma}{\epsilon} \rightarrow \frac{F/A_0}{\Delta L/L_0}$
 $\Delta L = \frac{F \cdot L_0}{A_0 \cdot E}$

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$$\Delta L = \frac{F \cdot L_0}{A_0 \cdot E}$$

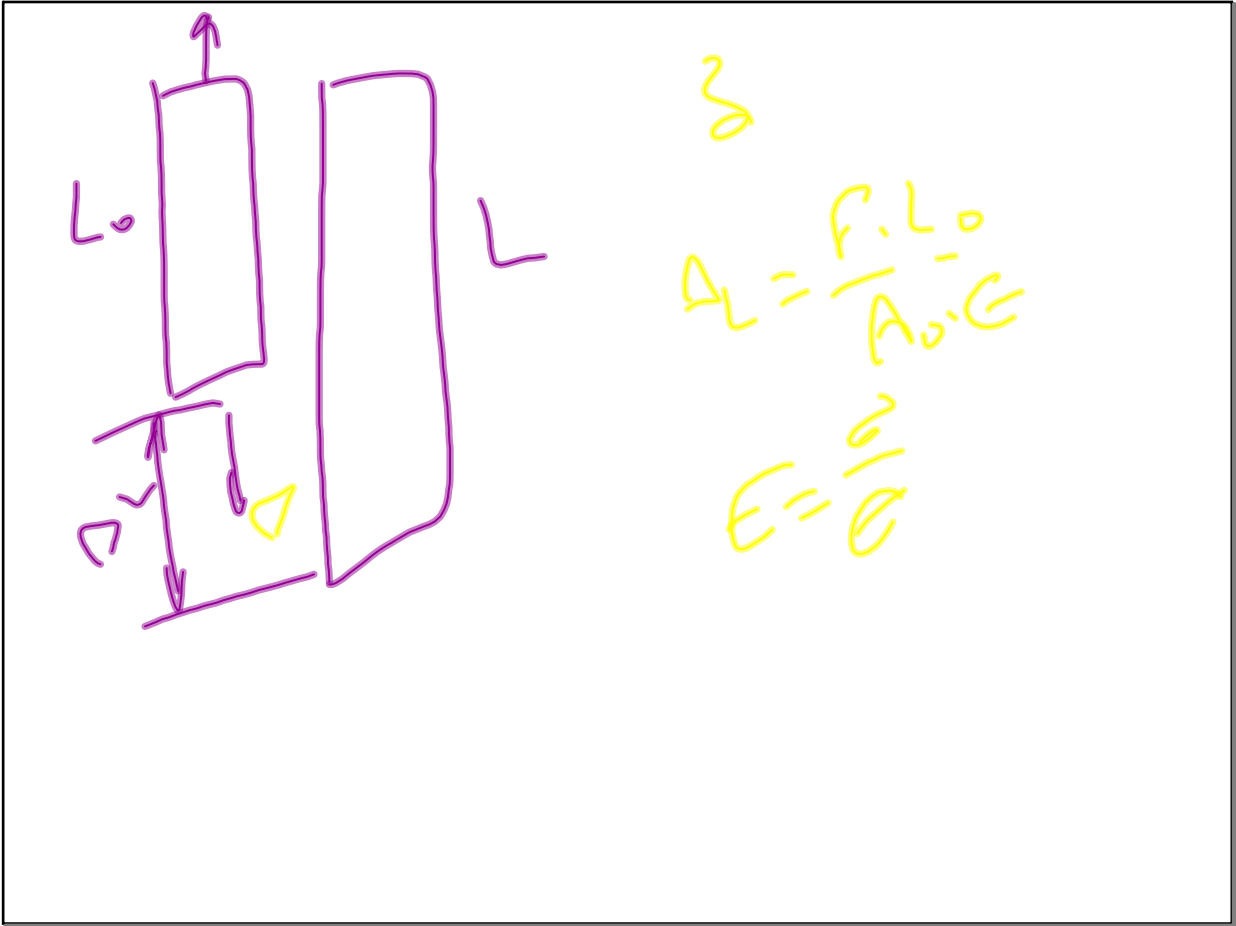
$$\frac{0.25}{1000} = \frac{F \cdot L_0}{A_0 \cdot E}$$

$$A_0 = \frac{d_0^2}{4} = \frac{(10.5)^2}{4} = 27.56 \text{ mm}^2$$

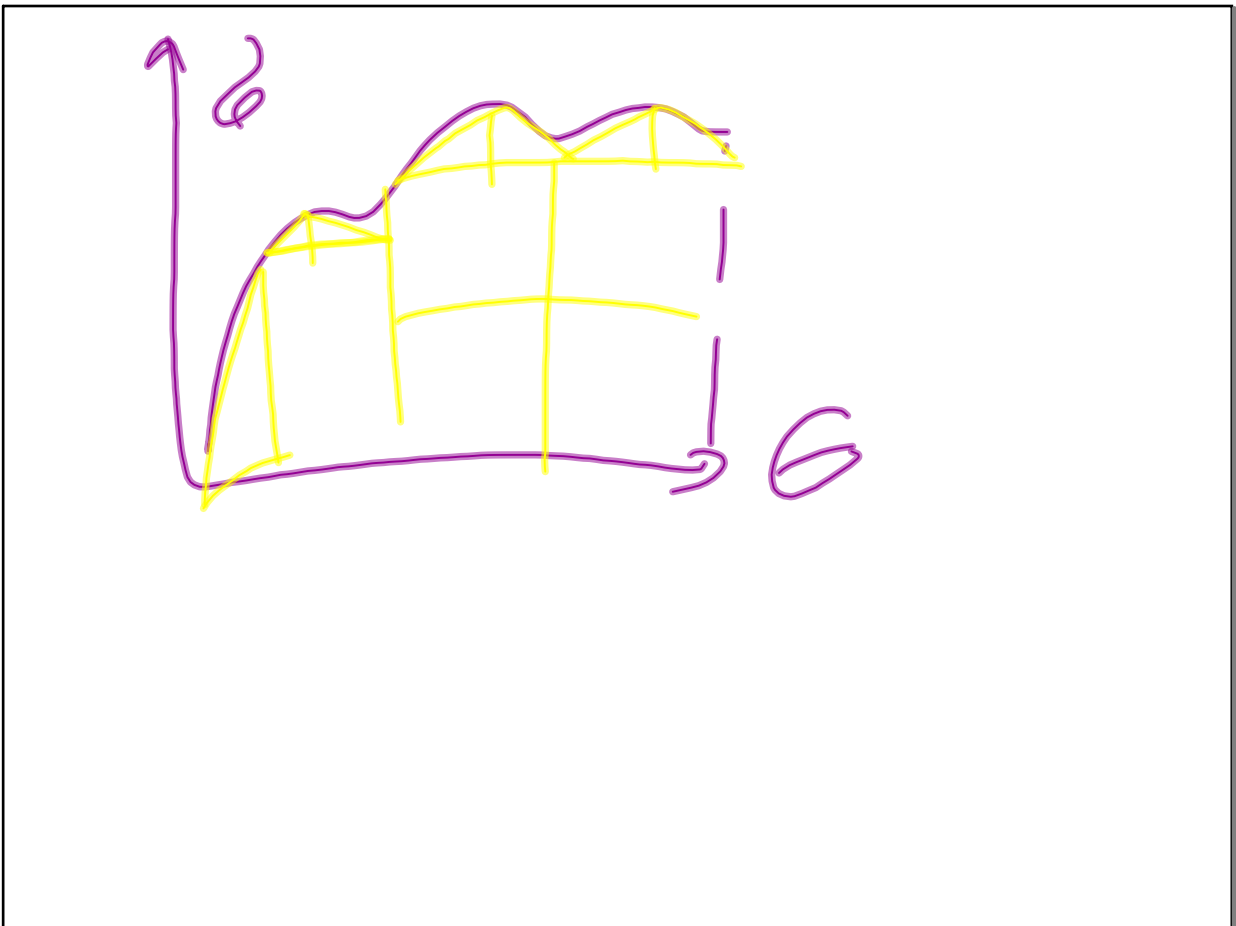
$$E = 10^4 \text{ MPa}$$

$$GPa = 10^9 \frac{N}{m^2}$$

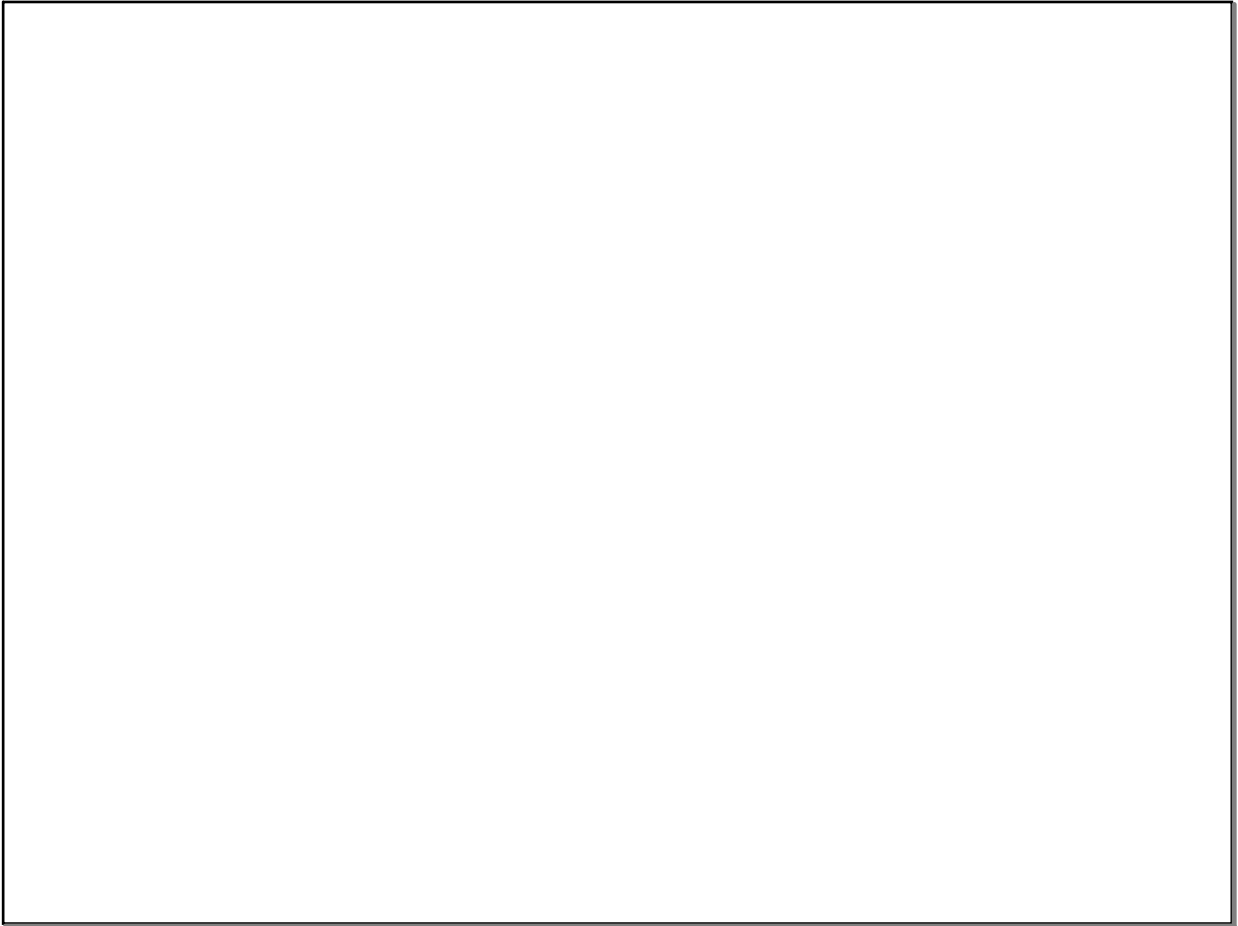
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Oct 8-5:31 PM



Oct 8-4:52 PM



Oct 8-5:29 PM