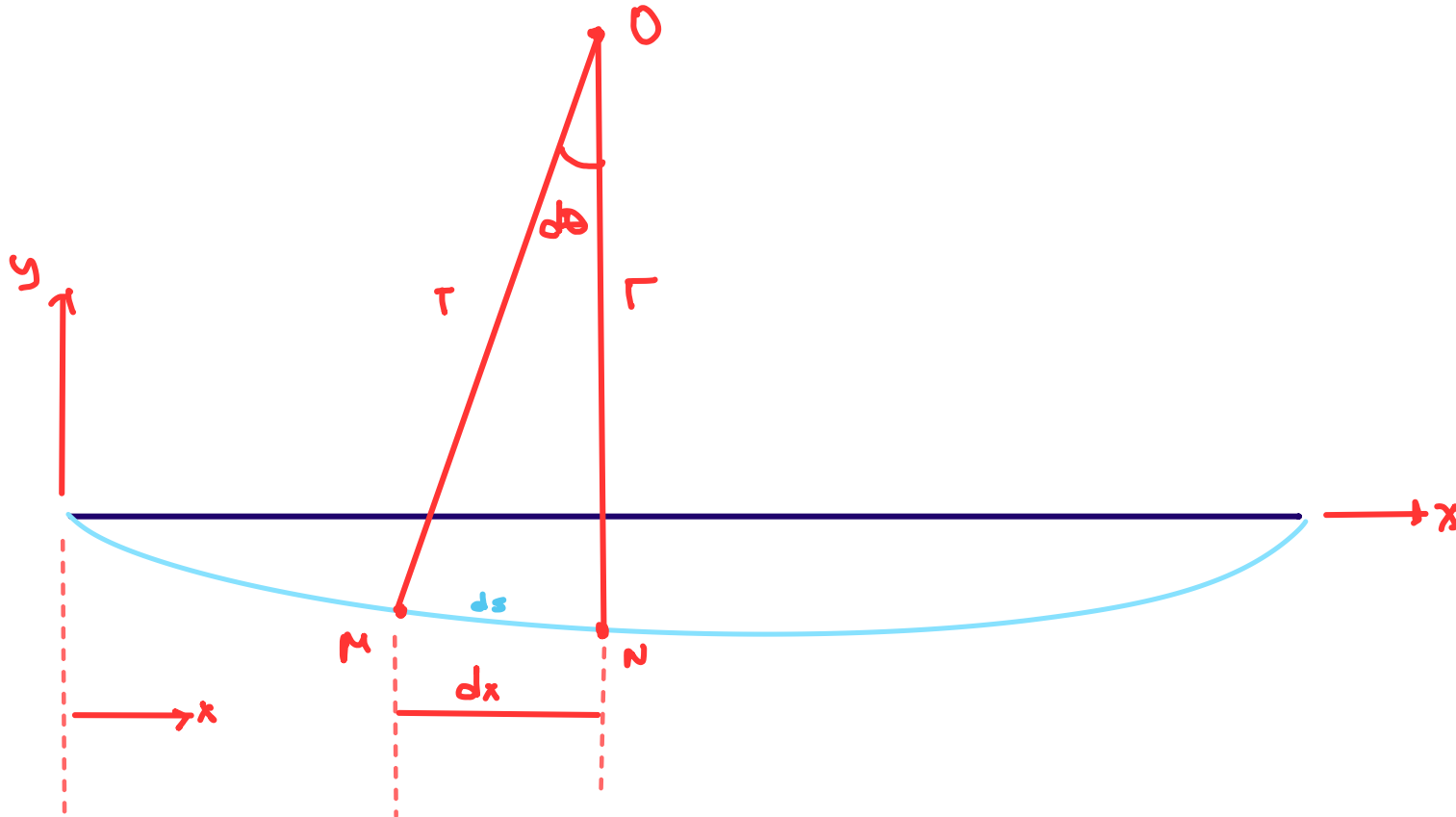
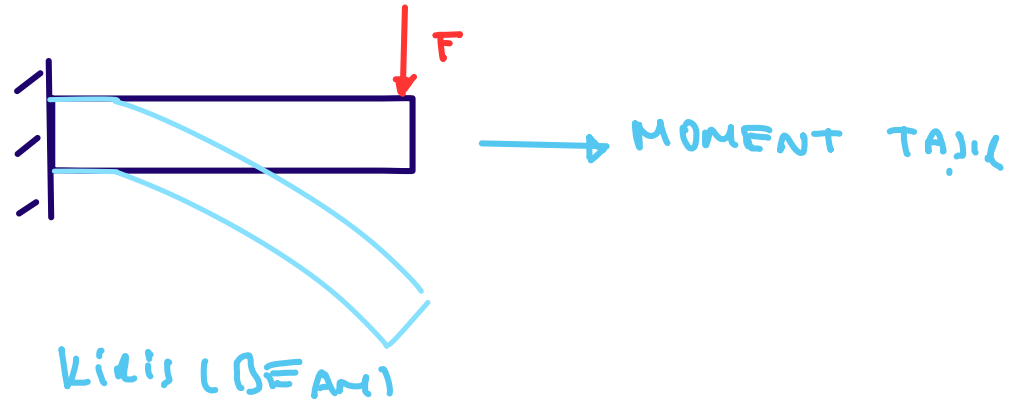
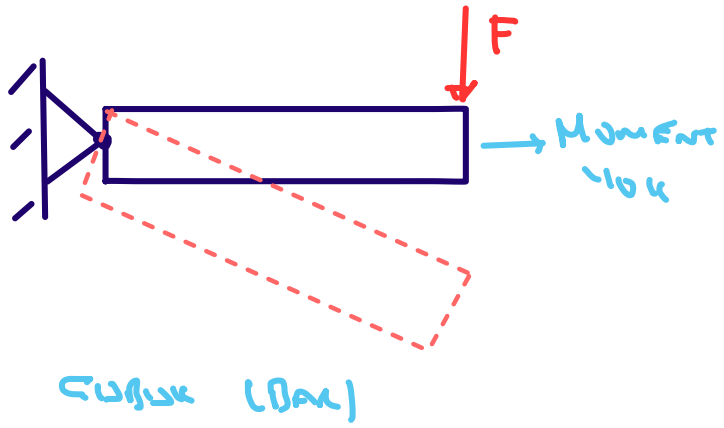
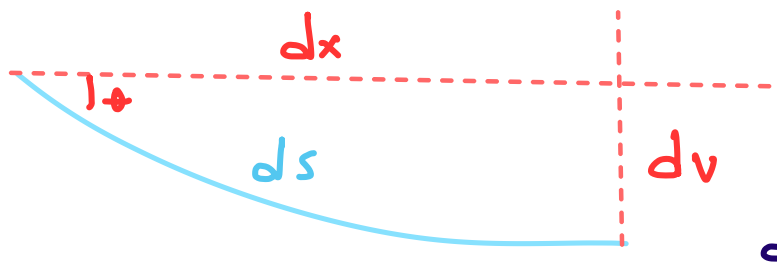


# EĞİM - SEHİM (GÖKME)



$$\tan \theta \approx \theta = \frac{dv}{dx} \checkmark$$



$$ds \approx dx$$

$$\frac{ds}{ds} = r \cdot \frac{d\theta}{ds} \Rightarrow 1 = r \cdot \frac{d\theta}{ds} = r \cdot \frac{d\theta}{dx} \checkmark \Rightarrow \frac{1}{r} = \frac{d\theta}{dx}$$

(ds ≈ dx)

$$\frac{1}{\rho} = \frac{M}{EI}$$

EĞİLİK YARICISI

EĞİLME KİSİTLİĞİNİ

$$\Rightarrow \frac{d\theta}{dx} = \frac{M}{EI}, \quad \theta = \frac{dv}{dx} \xrightarrow{\text{TÜREV}} \frac{d\theta}{dx} = \frac{d^2v}{dx^2} \quad (v = y)$$



$$\frac{d^2v}{dx^2} = \frac{M}{EI}$$

ELASTİK EĞİLME DENKLEMİ

∫ → EĞİM

∫∫ → SEHİM

BU KISIM ÖNEMLİ GALIYIN



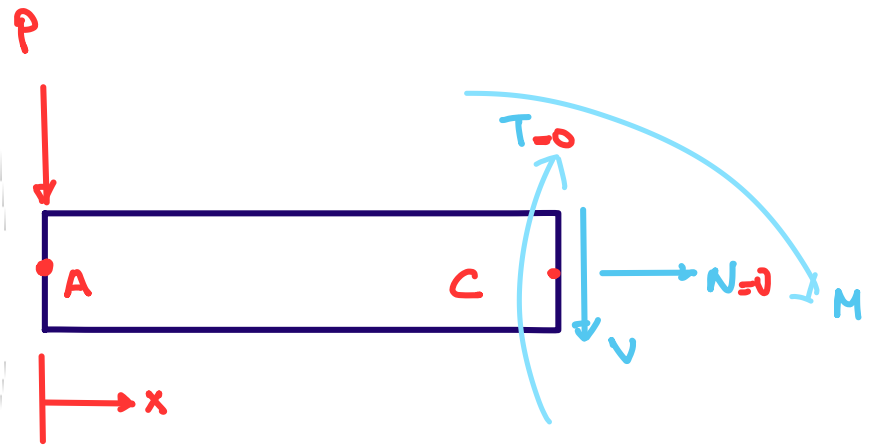
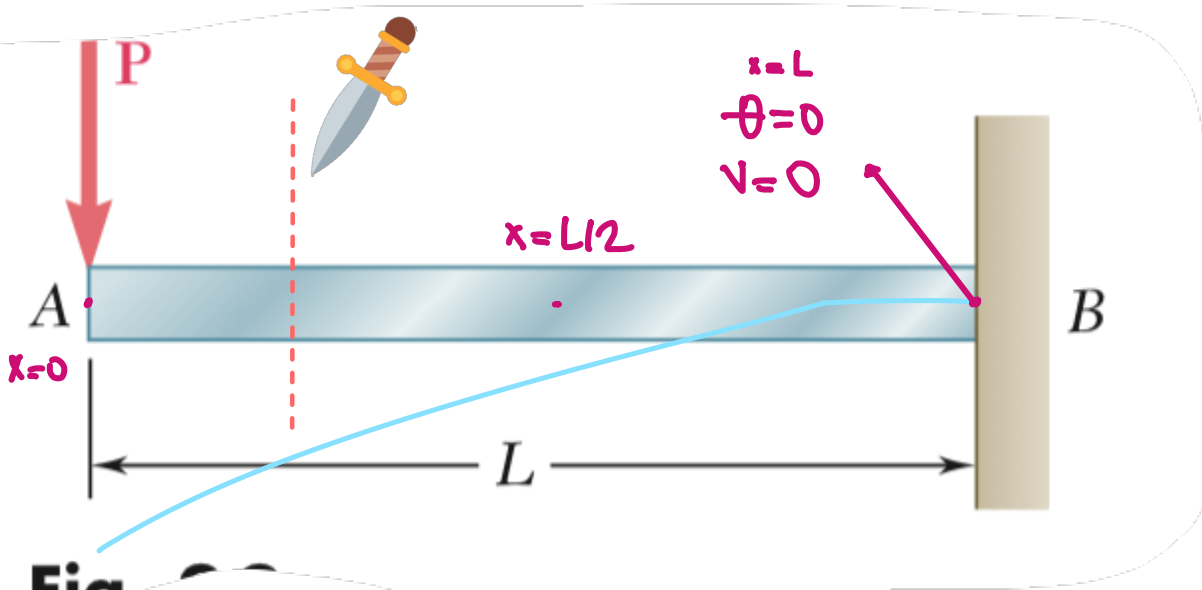
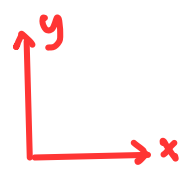


Fig 2.2

$$\sum M_C = 0 \quad \uparrow (+)$$

$$\Rightarrow + P \cdot x - M = 0 \quad \Rightarrow M = P \cdot x$$



$$\int \frac{M}{EI} = \int \frac{d^2 y}{dx^2} \quad \Rightarrow \quad \theta = \frac{dy}{dx} = \int y' = \int \frac{P \cdot x^2}{2EI} + C_1$$

$$(M = P \cdot x)$$

$$\Rightarrow y = v = \frac{P x^3}{6EI} + C_1 x + C_2$$

$$x=L \text{ in } \theta=0 \quad \Rightarrow$$

$$\left( -\frac{P \cdot L^2}{2EI} = + C_1 \right)$$

$$\Rightarrow v = \frac{P x^3}{6EI} - \frac{PL^2}{2EI} \cdot x + C_2$$

$$x=L \text{ için } v=0 \rightarrow c_2 = \frac{P \cdot L^2}{2EI} \cdot L - \frac{P \cdot L^3}{6EI} = + \frac{PL^3}{3EI}$$

$c_1$  ve  $c_2$  DULUNDU

DENKLEMLER YERLEKİNE YATILIK