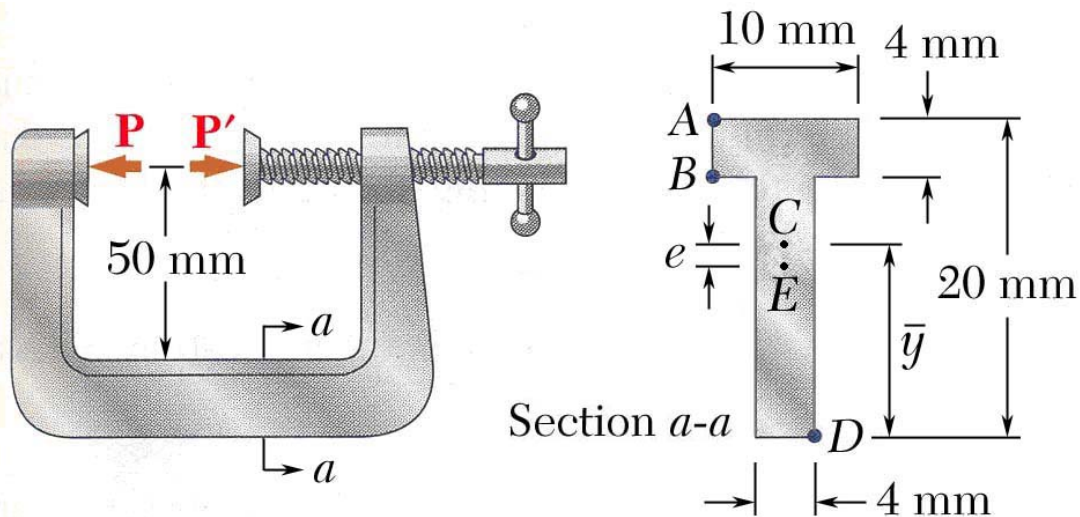


MEEG 3013 Quiz #4

The magnitude of tightening force in the clamp is $P = 600 \text{ N}$. Knowing that point C is the centroid of section $a-a$, determine (a) the value of \bar{y} , (b) the stress at point A , (c) the stress at point D , (d) the value of e if the stress at E is zero.



(a) $\bar{y} = 11.85 \text{ mm}$ ②

$I = 3.880205 \times 10^{-9} \text{ m}^4$ ①

$M = 34.89231 \text{ N}\cdot\text{m}$ ①

(b) $\sigma_A = +79.1 \text{ MPa}$ ②

(c) $\sigma_D = -100.8 \text{ MPa}$ ②

(d) $e = 0.642 \text{ mm}$ ②