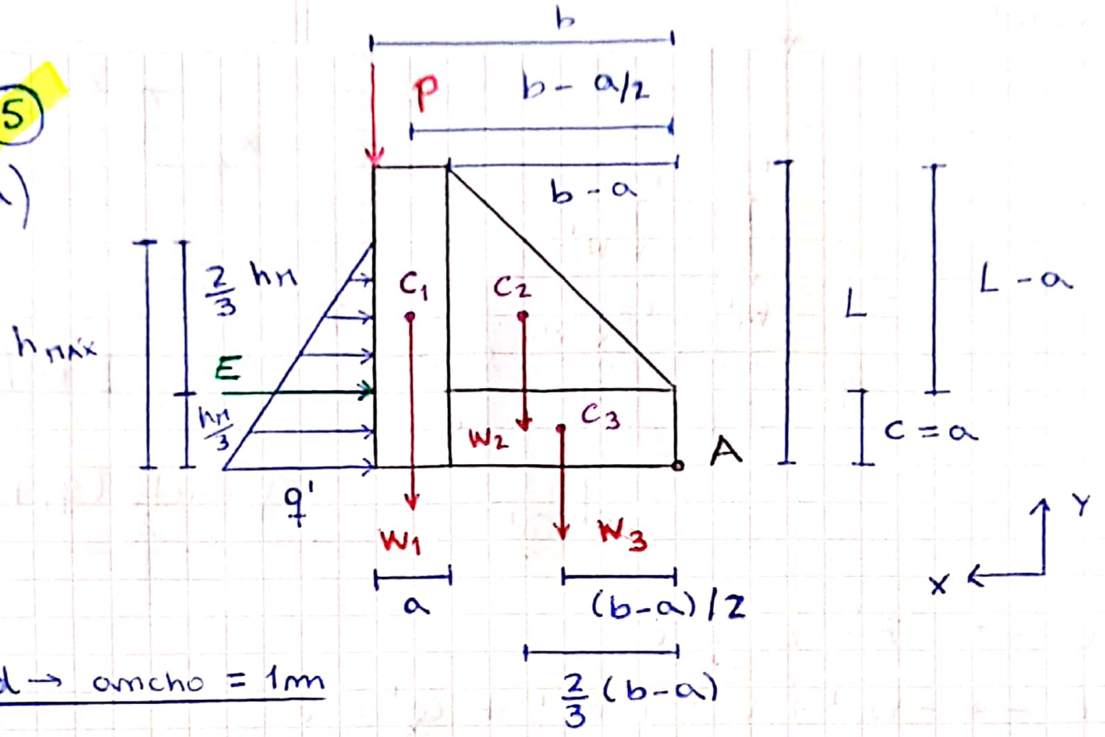
5

a)



$\underline{d \rightarrow \text{ancho} = 1m}$

$$P = \overbrace{5 \, tm/m}^{P'} \cdot d \longrightarrow \underline{P = 5 \, tm}$$

$$E = \underbrace{\gamma_{H_2O} \cdot d \cdot \frac{2}{3} h_m}_{q'} \cdot \frac{h_m}{\cancel{2}} \longrightarrow \underline{E = \frac{1}{3} \frac{tm}{m^2} h_m^2}$$

$$W_1 = \gamma_H \cdot a \cdot L \cdot d \longrightarrow \underline{W_1 = 60 \, tm}$$

$$W_2 = \gamma_H \cdot \frac{(b-a) \cdot (L-a)}{2} \cdot d \longrightarrow \underline{W_2 = 259,2 \, tm}$$

$$W_3 = \gamma_H \cdot (b-a) \cdot a \cdot d \longrightarrow \underline{W_3 = 21,6 \, tm}$$

$$\underline{\Sigma M^A = 0} \longrightarrow -P \cdot b + E \cdot \frac{h_m}{3} - W_1 \cdot (b - a/2) - W_2 \cdot \frac{2}{3}(b-a)$$

$$- W_3 \cdot \frac{(b-a)}{2} = 0$$

$$E \cdot \frac{h_m}{3} = P \cdot b + W_1 \cdot (b - a/2) + W_2 \cdot \frac{2}{3}(b-a) + W_3 \cdot \frac{(b-a)}{2}$$

$$\frac{1}{3} \frac{tm}{m^2} \frac{h_m^3}{3} =$$

Escaneado con CamScanner