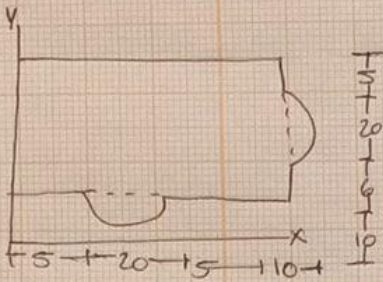




LICENCIATURA EN ARQUITECTURA

ESTATICA PARCIAL 2

ALUMNA. JEZSICA YAZMIN LOPEZ PEREZ



$$\textcircled{1} \quad C_x = b/2 = 30/2 = 15 \text{ cm}$$

$$C_y = h/2 = 30/2 = 15 + 10 = 25$$

$$A = 30 \times 30 = 900$$

$$C_g = \frac{4 \cdot R}{3 \cdot \pi}$$

$$C_y = \frac{4 \cdot 10}{3 \cdot 3 \cdot 14} = 4.24$$

$$C_{y2} = 10 - 4.24 = 5.76 \text{ cm}$$

$$C_{x1} = 20/2 = 10 + 5 = 15 \text{ cm}$$

$$A = \frac{\pi \cdot r^2}{2}$$

$$A = \frac{\pi \cdot 10^2}{2}$$

$$A = 157.08$$

$$A = \frac{\pi \cdot r^2}{2}$$

$$A = \frac{3.1416 \cdot 100}{2} = 157.08$$

$$C_{x2} = \frac{4R}{3\pi} = \frac{4 \cdot 10}{3 \cdot 3.1416} = 4.24 \text{ cm} + 5.0$$

$$C_x = 34.24$$

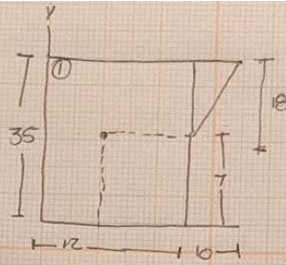
$$C_{y2} = h/2 = 20/2 = 10 + 10 \text{ cm} = 20$$

$$C_{yx} = \frac{(900 \cdot 15) + (157.08 \cdot 34.24) + (157.08 \cdot 15 \text{ cm})}{(900 + 157.08 + 157.08)}$$

$$C_{gx} = 17.48 \text{ cm}$$

$$C_{gy} = \frac{(900 \cdot 25) + (157.08 \cdot 25) + (157.08 \cdot 5.76)}{(900 + 157.08 + 157.08)}$$

$$C_{gy} = 22.51 \text{ cm}$$



$$\textcircled{1} \quad C_x = b/2 = 12 \text{ cm} / 2 = 6 \text{ cm}$$

$$C_y = 35/2 = \underline{17.5 \text{ cm}}$$

$$A = 12 \cdot 35 = \underline{420 \text{ cm}^2}$$

$$\textcircled{2} \quad C_x = b/3 = 10/3 = 3.33$$

$$C_y = 3.33 + 12 = 15.33$$

$$C_y = h/3 = 18/3 = 9.33 \text{ cm} \quad (1/3)$$

$$C_y = 9.33 \times 2 = 18.66 \text{ cm} = 25.66 \text{ cm}$$

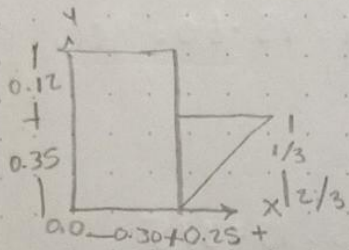
$$A = \frac{B \times h}{2} = \frac{10 \times 18}{2} = \underline{140 \text{ cm}^2}$$

$$C_{g_x} = \frac{(420 \cdot 6) + (140 \text{ cm} \cdot 15.33 \text{ cm})}{(420 + 140)}$$

$$C_{g_x} = \underline{8.35 \text{ cm}}$$

$$C_{g_y} = \frac{(420 \cdot 17.5) + (140 \cdot 25.66)}{(420 + 140)}$$

$$C_{g_y} = \underline{19.54 \text{ cm}}$$



$$① c_x = b/2 = 0.30/2 = 0.15 \text{ m}$$

$$c_y = h/2 = 0.47 \text{ m}/2 = 0.235 \text{ m}$$

$$② c_x = b/3 \rightarrow 0.25/3 = 0.083$$

$$0.083 + 0.30 = \underline{0.383 \text{ m}}$$

$$c_y = h/3 \rightarrow 0.35/3 = 0.116 \text{ m}$$

$$0.116 \times 2 = 0.233 \text{ m}$$

$$A = \frac{b \times h}{2} = \frac{0.25 \text{ m} (0.35 \text{ m})}{2}$$

$$\text{Area} = b \times h = 0.30 \text{ m} \times 0.47 \text{ m} = 0.141 \text{ m}^2$$

$$= 0.043 \text{ m}^2$$

$$c_x = \frac{(0.141 \text{ m}^2 \cdot 0.15 \text{ m}) + (0.043 \text{ m}^2 \cdot 0.383 \text{ m})}{0.141 \text{ m}^2 + 0.043 \text{ m}^2} = 0.309 \text{ m}$$

$$c_y = \frac{(0.235 - 0.15) + (0.233 - 0.043 \text{ m}^2)}{0.141 \text{ m}^2 + 0.043 \text{ m}^2} = 0.2345 \text{ m}$$

$$\textcircled{1} \quad c_x = \frac{b}{2} = \frac{45}{2} = 22.5 \text{ cm} \quad A = b \cdot h$$

$$c_y = \frac{h}{2} = \frac{25}{2} = 12.5 + 75 \quad A = 45 \cdot 25 = 1,125$$

$$\textcircled{2} \quad c_x = \frac{b}{2} = \frac{15}{2} = 7.5 + 10 = 22.5 \quad A = 13 \cdot 60 = 900$$

$$c_y = \frac{h}{2} = \frac{60}{2} = 30 + 15$$

$$\textcircled{3} \quad c_x = \frac{25}{2} = 12.5 \text{ cm} + 10 = 22$$

$$A = 25 \cdot 15 = 375$$

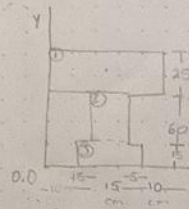
$$c_y = \frac{13}{2} = 7.5 \text{ cm}$$

$$c_{gx} = \frac{(1,125 \text{ cm}^2 \cdot 22.5 \text{ cm}) + (900 \cdot 22.5) + (375 \cdot 22.5)}{(1,125 + 900 + 375)}$$

$$c_{gx} = 22.5 \text{ cm}$$

$$c_{gy} = \frac{(1,125 \cdot 87.5) + (900 \cdot 45) + (375 \cdot 7.50)}{(1,125 + 900 + 375)}$$

$$c_{gy} = 59.06 \text{ cm}$$



$$c_x = \frac{45}{2} = 22.5$$

$$c_y = \frac{60}{2} = 30$$

$$A = 45 \times 25 = 1,125$$

$$\textcircled{2} \quad c_x = \frac{15}{2} = 7.5$$

$$c_y = \frac{60}{2} = 30$$

$$A = 13 \times 60 = 900$$

$$\textcircled{3} \quad c_x = \frac{25}{2} = 12.5$$

$$c_y = \frac{13}{2} = 7.5$$

$$A = 25 \times 15 = 375$$

$$c_{gx} = \frac{(1,125 \cdot 22.5) + (900 \cdot 22.5) + (375 \cdot 22.5)}{(1,125 + 900 + 375)} = 22.5$$

~~05/06~~
B