Ejercicios

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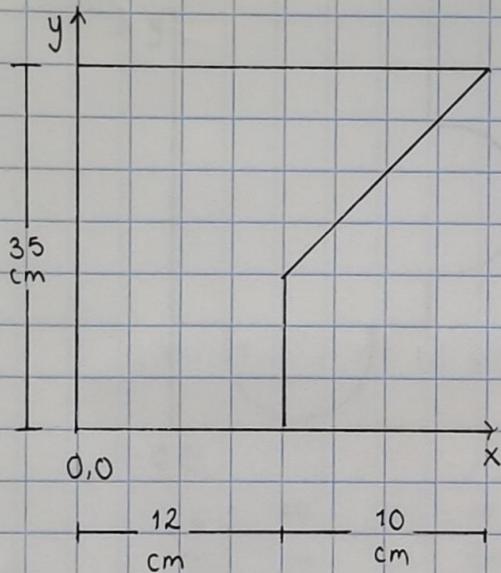
Nombre del tema: Figuras compuestas

Parcial: 11

Nombre de la Materia: Estatica para la arquitectura

Nombre del profesor: Arq. Pedro Garcia

Nombre de la Licenciatura: Arquitectura

Cuatrimestre: 3

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$$C_x = \frac{(420 \cdot 6)(140 \cdot 15.33)}{420 + 140}$$

$$C_x = 8.3325 \text{ cm}$$

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

$$C_y = 19.54 \text{ cm}$$

$$C_{x_1} = \frac{b}{2} = \frac{12}{2} = 6 \text{ cm} \qquad a = b \times h$$

$$a = (12)(35)$$

$$C_{y_2} = \frac{h}{2} = \frac{35}{2} = 17.5 \text{ cm} \qquad a = 420$$
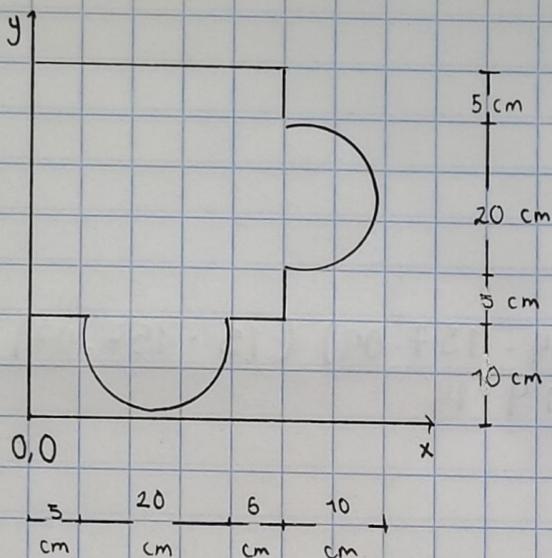
$$C_{x_2} = \frac{10}{3} + 12 - 15.33 \qquad a = \frac{(b)(h)}{2}$$

$$C_{y_2} = \frac{28}{3}(2) = 18.66 + 7 = 25.66 \qquad a = \frac{(10)(28)}{2}$$

$$a = 140$$

$$Cx_1 = \frac{30}{2} = 15$$

$$a = (30)(30)$$
$$a = 900 \text{ cm}$$

$$Cf_1 = \frac{30}{2} = 15 + 10 = 25 \text{ cm}$$

$$Cx_2 = \frac{4r}{3\pi} = \frac{40}{9.42} = 4.25 + 30 = 34.25 \text{ cm}$$

$$Cf_y = h/2 = 40/2 = 20 + 5 = 25 \text{ cm}$$

$$a = \frac{\pi \cdot r^2}{2}$$
$$a = 157.079 \text{ cm}^2$$

$$C_{x3} = \frac{4r}{3\pi} = 15 \text{ cm}$$

$$C_{y3} = \frac{h}{2} = 6.75 \text{ cm}$$

$$C_x = \frac{(15 \cdot 900)(34.24 \cdot 157.09)(15 \cdot 157.07)}{1214.14}$$

$$C_x = 17.48 \text{ cm}$$

$$C_y = \frac{(25 \cdot 900)(25 \cdot 157.09)(5.75 \cdot 157.07)}{1214.14}$$

$$C_y = 22.50 \text{ cm}$$