



Mi Universidad

Ejercicios

Nombre del Alumno: Alejandra Monserrath Aguilar Gómez

Nombre del tema: CENTROS DE GRAVEDAD

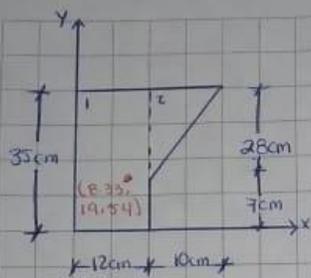
Parcial: 2

Nombre de la Materia: Estadística para la arquitectura

Nombre del profesor: Pedro Alberto García López

Nombre de la Licenciatura: Arquitectura

Cuatrimestre: 3



$$C_{x1} = \frac{b}{2} = \frac{12 \text{ cm}}{2} = 6 \text{ cm}$$

$$C_{y1} = \frac{h}{2} = \frac{35 \text{ cm}}{2} = 17.5 \text{ cm}$$

$$A_1 = b \times h = 12 \times 35 \text{ cm} = 420 \text{ cm}^2$$

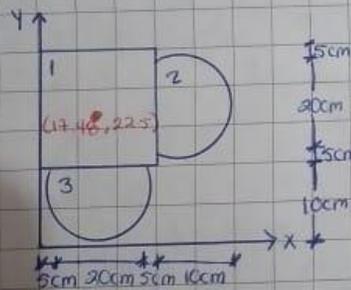
$$C_{x2} = \frac{b}{3} = \frac{10}{3} = 3.33 \text{ cm} + 12 \text{ cm} = 15.33 \text{ cm}$$

$$C_{y2} = \frac{h}{3} = \frac{28}{3} = 9.33 \text{ cm} \times 2 = 18.66 \text{ cm} + 7 \text{ cm} = 25.66 \text{ cm}$$

$$A_2 = \frac{b \times h}{2} = \frac{10 \times 28}{2} = 140 \text{ cm}^2$$

$$C_x = \frac{(420 \text{ cm}^2 \times 6 \text{ cm}) + (140 \text{ cm}^2 \times 15.33 \text{ cm})}{560} = 8.33 \text{ cm}$$

$$C_y = \frac{(420 \text{ cm}^2 \times 17.5 \text{ cm}) + (140 \text{ cm}^2 \times 25.66 \text{ cm})}{560} = 19.54 \text{ cm}$$



$$C_{x1} = \frac{a}{2} = \frac{30}{2} = 15 \text{ cm}$$

$$C_{y1} = \frac{h}{2} = \frac{30}{2} = 15 \text{ cm} + 10 \text{ cm} = 25 \text{ cm}$$

$$A_1 = 30 \times 30 = 900 \text{ cm}^2$$

$$C_{x2} = \frac{4a}{3\pi} = \frac{4(10)}{3\pi} = 4.244 \text{ cm} + 30 \text{ cm} = 34.244 \text{ cm}$$

$$C_{y2} = \frac{h}{2} = 10 \text{ cm} + 15 \text{ cm} = 25 \text{ cm}$$

$$A_2 = \frac{\pi \times (10)^2}{2} = 157.08 \text{ cm}^2$$

$$C_{x3} = \frac{2a}{3} = \frac{20}{3} = 6.67 \text{ cm} + 5 \text{ cm} = 11.67 \text{ cm}$$

$$C_{y3} = 10 - 4.244 = 5.756 \text{ cm}$$

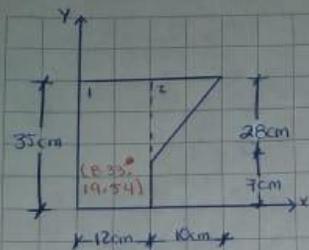
$$A_3 = 157.08 \text{ cm}^2$$

$$C_x = \frac{(900 \text{ cm}^2 \times 15 \text{ cm}) + (157.08 \times 34.244 \text{ cm}) + (157.08 \times 11.67 \text{ cm})}{1214.16} = 17.48 \text{ cm}$$

$$C_y = \frac{(900 \text{ cm}^2 \times 25 \text{ cm}) + (157.08 \times 25 \text{ cm}) + (5.756 \text{ cm})}{1214.16} = 22.50 \text{ cm}$$

1214.16

Scribe



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$$C_{y1} = \frac{h}{2} = \frac{35 \text{ cm}}{2} = 17.5 \text{ cm}$$

$$A_1 = b \times h = 12 \times 35 \text{ cm} = 420 \text{ cm}^2$$

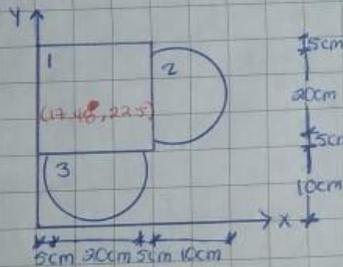
$$C_{x2} = \frac{b}{3} = \frac{10}{3} = 3.33 \text{ cm} + 12 \text{ cm} = 15.33 \text{ cm}$$

$$C_{y2} = \frac{h}{3} = \frac{28}{3} = 9.33 \text{ cm} \times 2 = 18.66 + 7 = 25.66 \text{ cm}$$

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Scribe