



ALUMNO(A): Aguilar Villar Luis Enrique

DOCENTE: Pedro Alberto García López

MATERIA: Estática para la arquitectura

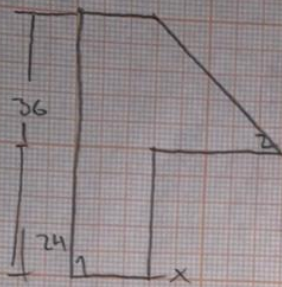
ACTIVIDAD: 1

PASIÓN POR EDUCAR

CUATRIMESTRE: 3er Cuatrimestre

GRUPO: LAR04EMC0121-A

LUGAR Y FECHA: Comitán de Domínguez, chis. 12/06/22



$$A_1 = 20 \text{ cm} (60 \text{ cm}) = 1200 \text{ cm}^2$$

$$x_1 = \frac{b}{2} \rightarrow \frac{20}{2} = 10 \text{ cm}$$

$$y = \frac{h}{3} \rightarrow \frac{60}{3} = 30 \text{ cm}$$

$$A_2 = \frac{30 \text{ cm} (36 \text{ cm})}{2} = 540 \text{ cm}^2$$

$$x_2 = \frac{b}{3} \rightarrow \frac{30}{3} = 10 + 20 \text{ cm} = 30 \text{ cm}$$

$$y_2 = \frac{h}{3} \rightarrow \frac{36}{3} = 12 \text{ cm} + 24 = 36 \text{ cm}$$

$$H_{20} + 30 +$$

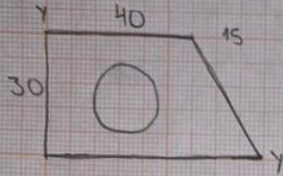
$$x = \frac{\sum x \cdot H}{\sum A} \rightarrow C_{gx} = \frac{A \cdot x_1 + A_2 \cdot x_2}{A_1 + A_2}$$

$$C_{gx} = \frac{1200 \text{ cm}^2 (10 \text{ cm}) + 540 \text{ cm}^2 (30 \text{ cm})}{1200 \text{ cm}^2 + 540 \text{ cm}^2}$$

$$= \frac{12,000 \text{ cm}^2 + 16,200 \text{ cm}^2}{1740 \text{ cm}^2} = \frac{28,200 \text{ cm}^2}{1740 \text{ cm}^2} = 16.20 \text{ cm}$$

$$C_{gy} = \frac{1200 \text{ cm}^2 (36 \text{ cm}) + 540 \text{ cm}^2 (36 \text{ cm})}{1200 \text{ cm}^2 + 540 \text{ cm}^2} = \frac{36,000 + 19,440}{1740 \text{ cm}^2}$$

$$= \frac{55,440 \text{ cm}^3}{1740 \text{ cm}^2} = 31.86 \text{ cm}$$



$$A_1 = (40)(30) = 1200 \text{ cm}^2$$

$$r_1 = \frac{40}{2} = 20$$

$$r_1 = \frac{30}{2} = 15$$

$$A_2 = 3.1416 (10)^2 = 314.16$$

$$r_2 = r = 10 + 5 = 15$$

$$r_2 = r = 10 + 10 = 20$$

$$A_3 = \frac{(15)(30)}{2} = 225$$

$$(gy = \frac{1200(20) - 314.16(13) + 225(45)}{1200 - 314.16 + 225})$$

$$= \frac{24000 - 4084.08 + 10125}{1110.84}$$

$$= \frac{13915.92}{1110.84}$$

$$= 12.52$$

$$x_2 = \frac{r}{2} = \frac{15}{3} = 5 + 40 = 45$$

$$r_3 = \frac{r}{3} = \frac{30}{3} = 10$$

$$24.000$$

$$- 4084.08$$

$$+ 10125$$

$$(gy = \frac{1200(15) - 314.16(20) + 225(50)}{1200 - 314.16 + 225})$$

$$= \frac{18000 - 6283.2 + 11250}{1110.84}$$

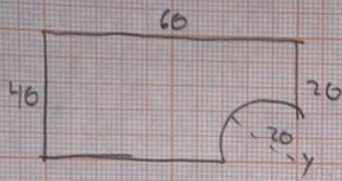
$$18.000$$

$$- 6283.2$$

$$+ 11250$$

$$13.966.8$$

$$1110.84$$



$$A_1 = 60 \times 40 = 2400 \text{ cm}^2$$

$$r_1 = \frac{60}{2} = 30 \text{ cm}$$

$$r_2 = \frac{40}{2} = 20 \text{ cm}$$

$$A_2 = \frac{3.1416 (20)^2}{4} = 3.1416$$

$$y_2 = \frac{4(20)}{3(3.1416)} = \frac{80}{9.4248} = 8.49 = 51.51$$

$$y_1 = \frac{4(20)}{3(3.1416)} = 8.49$$

$$CG_x = \frac{2400(30) - 3.1416(51.5)}{2400 - 3.1416} = \frac{56.217.62}{2085.84} = 26.76 \text{ cm}$$