

MATERIA:

ESTATICA PARA LA ARQUITECTURA

TRABAJO:

CENTROIDES

ALUMNO:

URIEL FERNANDO RUIZ ESPINOSA

ASESOR:

PEDRO ALBERTO GARCIA LOPEZ

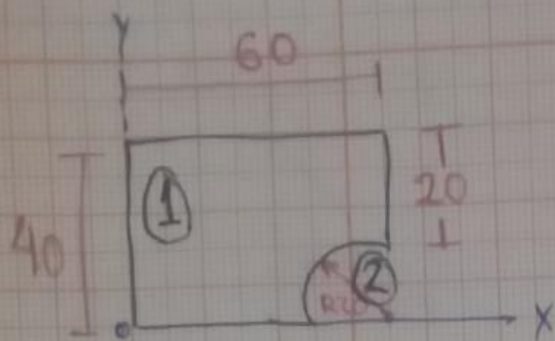
GRADO DE ESCOLARIDAD:

TERCER CUATRIMESTRE

FECHA:

12 DE JUNIO DEL 2022





$$A_1 = b/h = 40(60) = \underline{2,400}$$

$$x_1 = \frac{b}{2} = \frac{40}{2} = \underline{20}$$

$$y_1 = \frac{a}{2} = \frac{40}{2} = \underline{20}$$

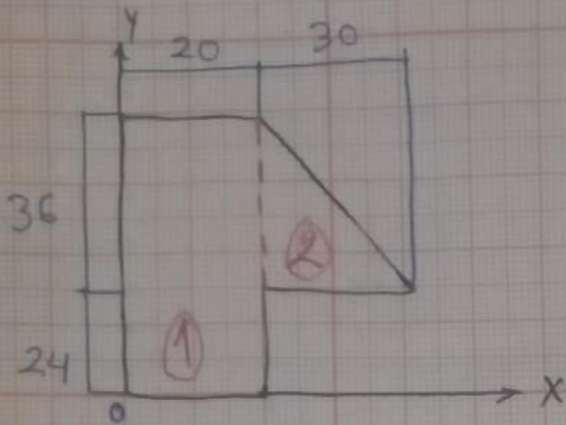
$$A_2 = \frac{\pi r^2}{4} = \frac{3.1416(20\text{cm})^2}{4} = \underline{314.16}$$

$$x_2 = \frac{4r}{3\pi} = \frac{4(20\text{cm})}{3(3.1416)} = \underline{8.488} = 60 - 8.488 = \underline{51.512/}$$

$$y_2 = \frac{4r}{3\pi} = \frac{4(20\text{cm})}{3(3.1416)} = \underline{8.488} = 40 - 8.488 = \underline{31.512/}$$

$$(g_x = \frac{2,400 \text{cm}(20\text{cm}) - 314.16(51.512)}{2,400 - 314.16} = \frac{31,816.99}{2,085.84} = \underline{15.253}$$

$$(g_y = \frac{2,400 \text{cm}(20\text{cm}) - 314.16(31.512)}{2,400 - 314.16} = \frac{38,100.19}{2,085.84} = \underline{18.266/}$$



$$A_1 = 20 \text{ cm} (60 \text{ cm}) = \underline{1,200 \text{ cm}}$$

$$x_1 = 20 / 2 = \underline{10 \text{ cm}}$$

$$y_1 = 60 / 2 = \underline{30 \text{ cm}}$$

$$A_2 = 30 \text{ cm} (36 \text{ cm}) = \underline{540 \text{ cm}}$$

$$x_2 = \frac{30 \text{ cm}}{3} + 20 \text{ cm} = \underline{30}$$

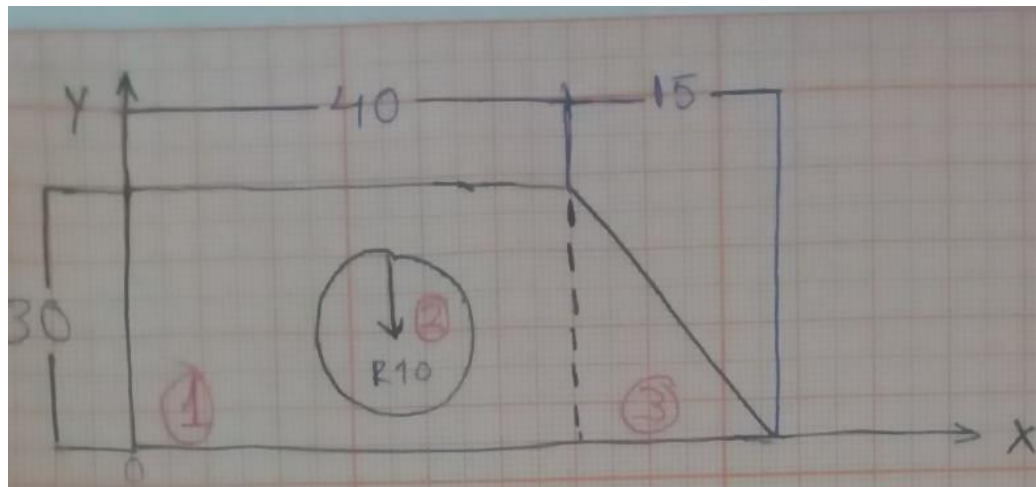
$$y_2 = \frac{36 \text{ cm}}{3} + 24 \text{ cm} = \underline{36}$$

$$C_{gx} = \frac{1,200 \text{ cm} (10 \text{ cm}) + 540 \text{ cm} (30 \text{ cm})}{1,200 \text{ cm} + 540 \text{ cm}} = \frac{28,200}{1,740}$$

$$C_{gx} = \underline{16.20/}$$

$$C_{gy} = \frac{1,200 \text{ cm} (30) + 540 (36)}{1,200 + 540} = \frac{55,440}{1,740}$$

$$C_{gy} = \underline{31.86/}$$



$$A_1 = 40(30) = 1,200$$

$$x_1 = 40/2 = 20$$

$$y_1 = 30/2 = 15$$

$$A_2 = \frac{3.1416(10_{cm})^2}{1} = 314.16$$

$$x_2 = \frac{4(10)}{3(3.1416)} = 4.244 - 20 = -15.756$$

$$y_2 = \frac{4(10)}{3(3.1416)} = 4.244 - 15 = -10.756$$

$$A_3 = 30(15) = 450$$

$$x_3 = \frac{15}{3} = 5$$

$$y_3 = \frac{30}{3} = 10$$