



Liliana Vázquez Moreno

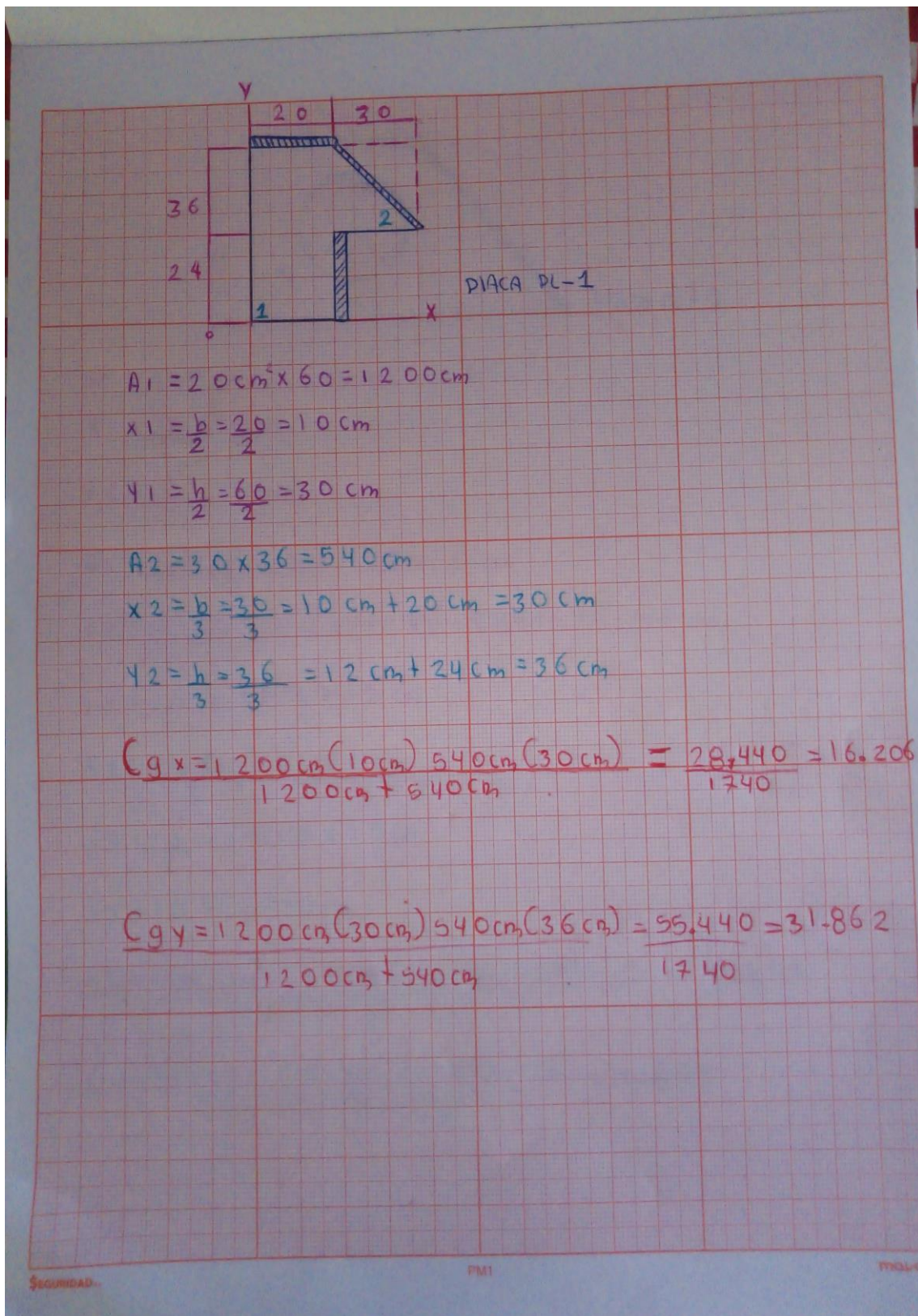
Pedro Alberto García López

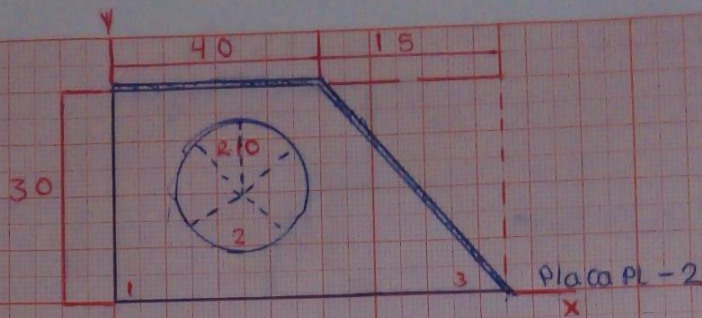
Estática para la arquitectura

3er cuatrimestre

12 de junio del 2022

No





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

$$x_1 = \frac{40}{2} = 20 \text{ cm}$$

$$y_1 = \frac{30}{2} = 15 \text{ cm}$$

$$A_2 = \frac{3.1416(10^2)}{2} = 157.08 \text{ cm}^2$$

$$x_2 = \frac{4(10)}{3(3.1416)} = 4.244 = 40 - 4.244 = 35.756 \text{ cm}$$

$$y_2 = \frac{10}{2} = 5 + 10 = 15 \text{ cm}$$

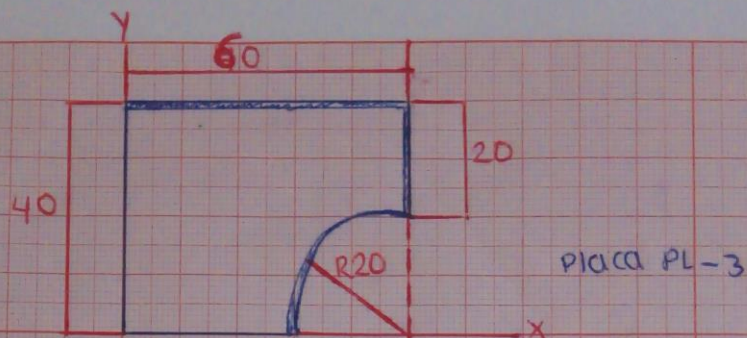
$$A_3 = \frac{15(30)}{2} = 225 \text{ cm}^2$$

$$x_3 = \frac{15}{3} = 5 + 10 = 15 \text{ cm}$$

$$y_3 = 10 + 20 = 30 \text{ cm}$$

$$\bar{c}_x = \frac{1200(20) - 157.08(35.756) - 225(15)}{1200 - 157.08 - 225} = 18.349$$

$$\bar{c}_y = \frac{1200(15) - 157.08(15) - 225(30)}{1200 - 157.08 - 225} = 10.873$$



$$A_1 = \frac{b \times h}{2} = 60 (40) = 2400 \text{ cm}$$

$$x_1 = \frac{60}{2} = 30 \text{ cm}$$

$$y_1 = \frac{40}{2} = 20 \text{ cm}$$

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

$$x_2 = \frac{4(20)}{3(3.1416)} = 8.488 \text{ cm} = 40 - 8.488 = 31.512 \text{ cm}$$

$$y_2 = \frac{20}{2} = 10 + 10 = 20 \text{ cm}$$

$$\bar{c}g_x = \frac{2400 (30) - 314.16 (31.512)}{2400 - 314.16} = 29.772 \text{ cm}$$

$$\bar{c}g_y = \frac{2400 (20) - 314.16 (20)}{2400 - 314.16} = 20 \text{ cm}$$