

UDS

ALUMNO

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DOCENTE

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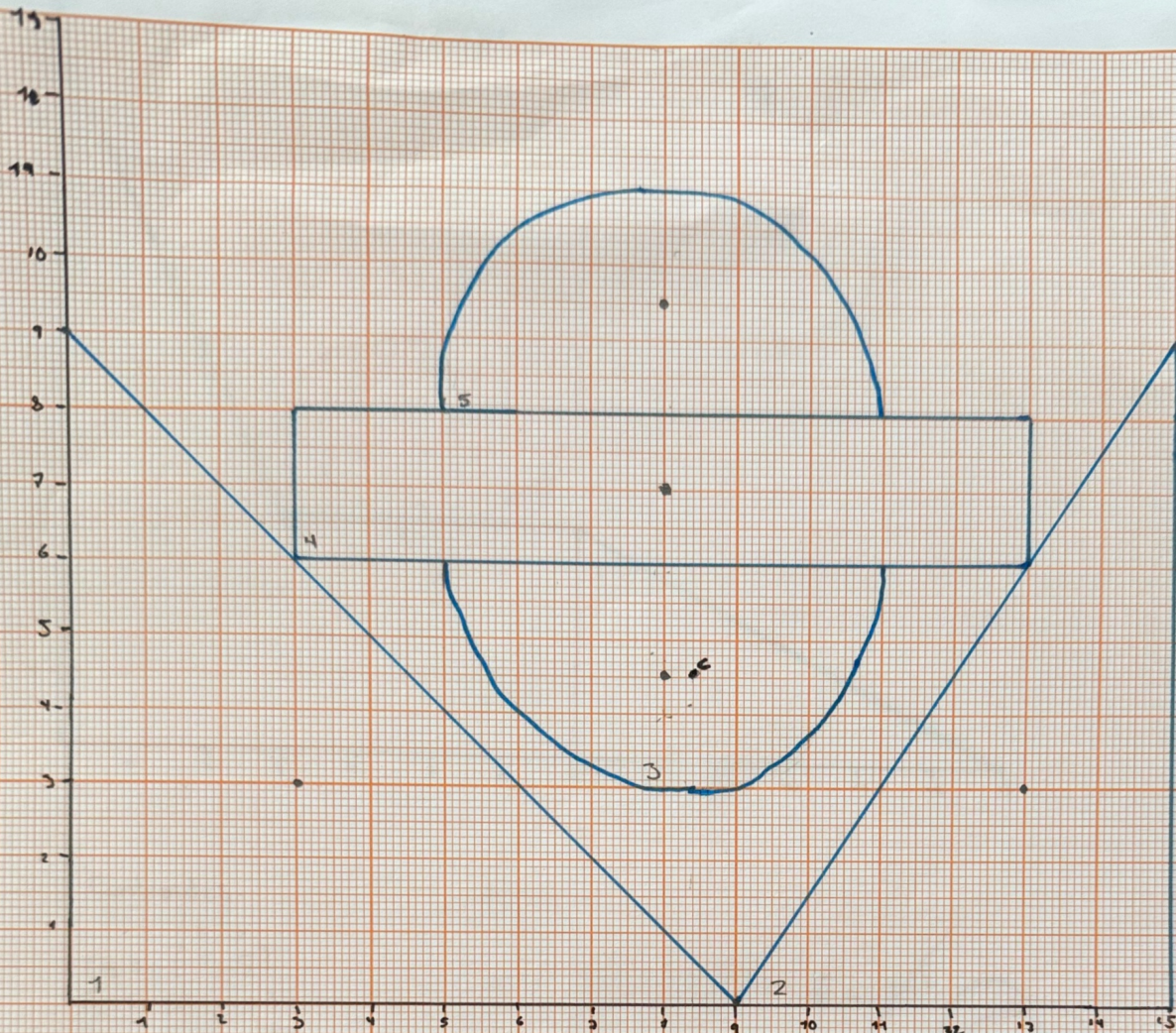
TRABAJO

FUERZA EN EQUILIBRIO

MATERIA

ESTATICA

 **2025**



Centroides

Fig 1: (3, 3)

Fig 2: (13, 3)

Fig 3: (8, 4.5)

Fig 4: (8, 7)

Fig 5: (8, 9.5)

Areas

$$\text{Fig 1} = \frac{9 \times 9}{2} = 40.5 \text{ u}^2$$

$$\text{Fig 2} = \frac{6 \times 9}{2} = 27 \text{ u}^2$$

$$\text{Fig 3} = \frac{\pi \times 3^2}{2} = 14.137 \text{ u}^2$$

$$\text{Fig 4} = 10 \times 2 = 20 \text{ u}^2$$

$$\text{Fig 5} = \frac{\pi \times 3^2}{2} = 14.137 \text{ u}^2$$

$$x_{\text{centroide}} = \frac{(40.5 \times 3) + (27 \times 13) + (14.137 \times 8) + (20 \times 8) + (14.137 \times 8)}{40.5 + 27 + 14.137 + 20 + 14.137} = 7.916$$

$$y_{\text{centroide}} = \frac{(40.5 \times 3) + (27 \times 3) + (14.137 \times 4.5) + (20 \times 7) + (14.137 \times 9.5)}{40.5 + 27 + 14.137 + 20 + 14.137} = 4.66$$