

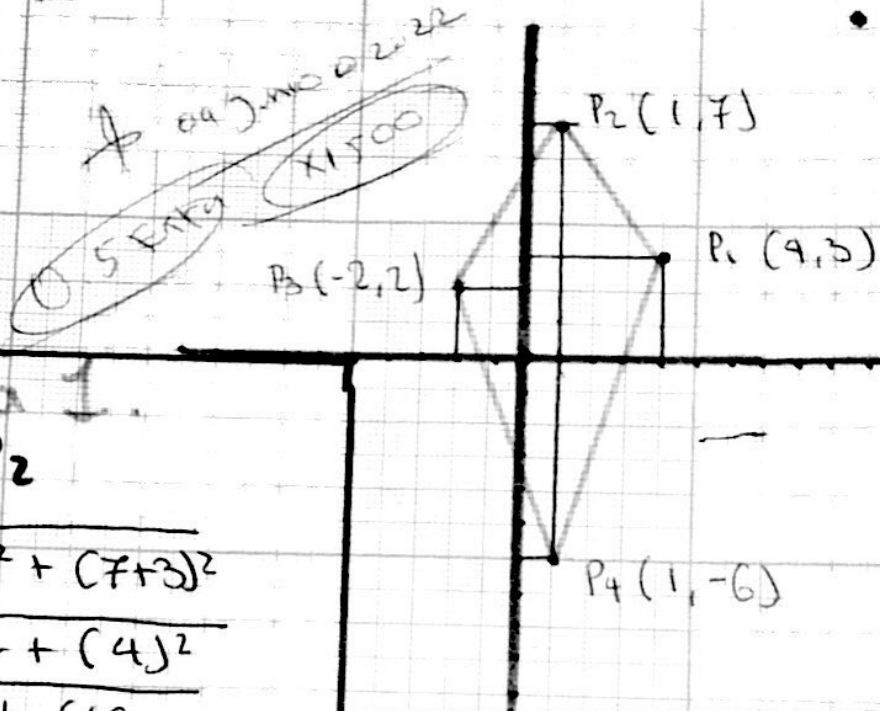
# Ejercicio 1

$$P_1 (4, 3)$$

$$P_2 (1, 7)$$

$$P_3 (-2, 2)$$

$$P_4 (1, -6)$$



Distancia 1.

$P_1, P_2$

$$P_1 P_2 = \sqrt{(1-4)^2 + (7-3)^2}$$

$$P_1 P_2 = \sqrt{(-3)^2 + (4)^2}$$

$$P_1 P_2 = \sqrt{9 + 16}$$

$$P_1 P_2 = \sqrt{25}$$

$$P_1 P_2 = 5$$

Distancia 3

$P_3, P_4$

$$P_3 P_4 = \sqrt{(1-(-2))^2 + (-6-2)^2}$$

$$P_3 P_4 = \sqrt{(3)^2 + (-8)^2}$$

$$P_3 P_4 = \sqrt{9 + 64}$$

$$P_3 P_4 = \sqrt{73}$$

$$P_3 P_4 = 8.54$$

Distancia 2:

$P_2, P_3$

$$P_2 P_3 = \sqrt{(-2-1)^2 + (2-7)^2}$$

$$P_2 P_3 = \sqrt{(-3)^2 + (-5)^2}$$

$$P_2 P_3 = \sqrt{9 + 25}$$

$$P_2 P_3 = \sqrt{34}$$

$$P_2 P_3 = 5.83$$

# Continuación pendientes.

Pendientes

$$m = \frac{y^2 - y^1}{x^2 - x^1} = \frac{3 - 6}{4 - 1} = \frac{-3}{3} = -\frac{3}{3}$$

$P_4$   $P_1$

$P_4(1, 6)$

$P_1(4, 3)$

$$\theta = \text{arccotang } m = \text{arccotang } \left(-\frac{3}{3}\right) =$$

$$\alpha = \text{arccotang } m = \boxed{45^\circ 0' 0''}$$

# Continuación:

$\sum_{i=2}^3 P_2, P_3$

$$P_1 P_2 = \sqrt{(1 - (-1))^2 + (-8 - 8)^2}$$

$$P_1 P_2 = \sqrt{(2)^2 + (-16)^2}$$

$$P_1 P_2 = \sqrt{(4) + (256)}$$

$$P_1 P_2 = \sqrt{260}$$

$$P_1 P_2 = \sqrt{260}$$

$$P_1 P_2 = 16 \cdot 12$$

$\sum_{i=3}^1 P_3, P_1$

$$P_1 P_2 = \sqrt{(8 - 1)^2 + (1 - (-8))^2}$$

$$P_1 P_2 = \sqrt{(7)^2 + (9)^2}$$

$$P_1 P_2 = \sqrt{(49) + (81)}$$

$$P_1 P_2 = \sqrt{130}$$

$$P_1 P_2 = 11 \cdot 40$$

## Pendientes:

$P_1, P_2$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{8 - 1}{-1 - 8} = \frac{7}{-9}$$

$$\theta = \arctang m = \arctang \left( \frac{7}{-9} \right) = 37^\circ 52' 29.94''$$

$P_2, P_3$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-8 - 8}{1 - (-1)} = \frac{-16}{2} = \frac{16}{2}$$

$$\theta = \arctang m = \arctang \left( \frac{16}{2} \right) = 82^\circ 52' 29.94''$$

$P_3, P_1$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{1 - (-8)}{8 - 1} = \frac{9}{7}$$

$$\theta = \arctang m = \arctang \left( \frac{9}{7} \right) = 57^\circ 7' 30.06''$$

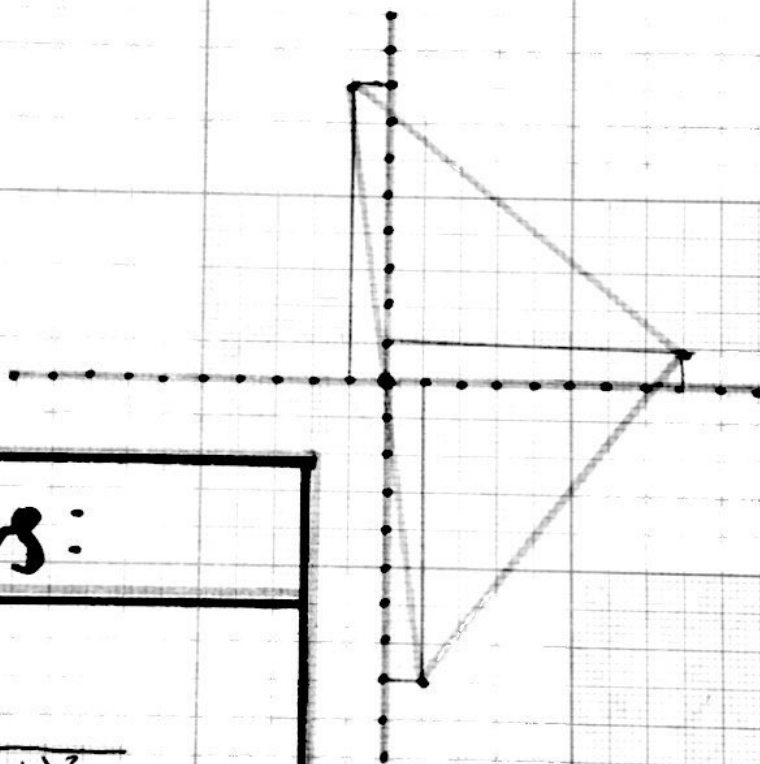
# Ejercicio 2

- Graficar los puntos de la figura
- Calcular los lados de cada lado de la figura y el perímetro de la misma.
- Calcular la pendiente (pendiente) y el ángulo de inclinación de cada recta.

$$P_1(8, 1)$$

$$P_2(-1, 8)$$

$$P_3(1, -8)$$



**distancias:**

$$\{P_1, P_2\}$$

$$P_1P_2 = \sqrt{(-1-8)^2 + (8-1)^2}$$

$$P_1P_2 = \sqrt{(-9)^2 + (7)^2}$$

$$P_1P_2 = \sqrt{81 + 49}$$

$$P_1P_2 = \sqrt{130}$$

$$P_1P_2 = 11.40$$

# Continuacion

Distancia 4

$P_4, P_1$

total  
28.85

$P_4 (1, -6)$   
 $P_1 (4, 3)$

$$P_4 P_1 = \sqrt{(4-1)^2 + (3-(-6))^2}$$

$$P_4 P_1 = \sqrt{(3)^2 + (9)^2}$$

$$P_4 P_1 = \sqrt{(9) + (81)}$$

$$P_4 P_1 = \sqrt{90}$$

$$P_4 P_1 = 9.48$$

$P_1 (4, 3)$   
 $P_2 (1, 7)$   
 $P_3 (-2, 2)$   
 $P_4 (1, -6)$

## pendientes

Pendiente 1:

$P_1 P_2$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{7 - 3}{1 - 4} = \frac{4}{-3} = -\frac{4}{3}$$

$$\theta = \text{arctang } m = \text{arctang } \left(-\frac{4}{3}\right) = -52^\circ 0' 0''$$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{2 - 7}{-2 - 1} = \frac{-5}{-3} = \frac{5}{3}$$

Pendiente 2:  
 $P_2 P_3$

$$\theta = \text{arctang } m = \text{arctang } \left(\frac{5}{3}\right) = 59^\circ 2' 10.48''$$

$$m = \frac{y_2 - y_1}{x_2 - x_1} = \frac{-6 - 2}{1 - (-2)} = \frac{-8}{3} = -\frac{8}{3}$$

Pendiente 3:  
 $P_3 P_4$

$$\theta = \text{arctang } m = \text{arctang } \left(-\frac{8}{3}\right) = -69^\circ 7' 38.70''$$