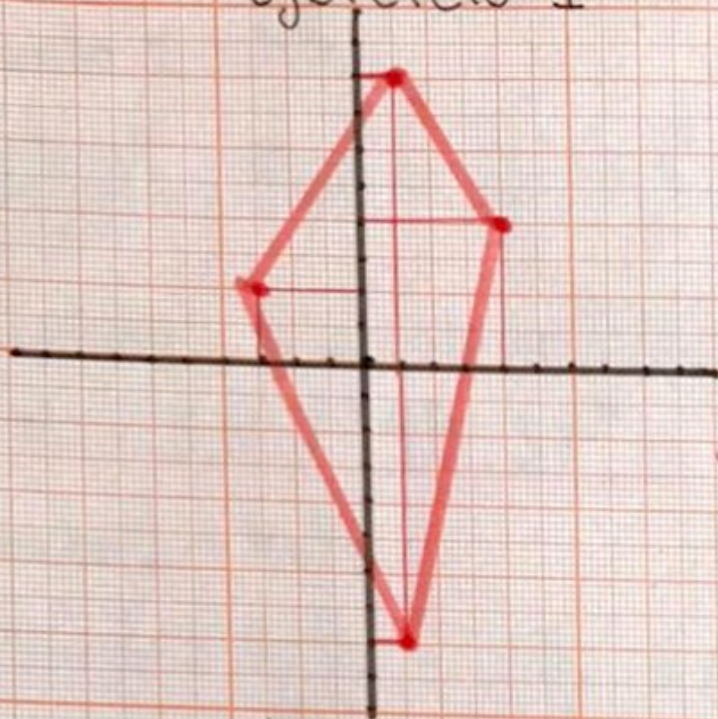


Ejercicio 1



$$P_1 (4,4)$$

$$P_2 (1,8)$$

$$P_3 (-3,2)$$

$$P_4 (1,-8)$$

Formula.

$$\sqrt{(x^2-x^1)^2 + (y^2-y^1)^2}$$

Distancias

P_1P_2 - distancia 1.

$$\overrightarrow{P_1P_2} = \sqrt{(1-4)^2 + (8-4)^2}$$

$$\overrightarrow{P_1P_2} = \sqrt{(-3)^2 + (4)^2}$$

$$\overrightarrow{P_1P_2} = \sqrt{(9) + (16)}$$

$$\overrightarrow{P_1P_2} = \sqrt{25}$$

$$\overrightarrow{P_1P_2} = \underline{5}$$

Distancia 2 - P_2P_3

$$\overrightarrow{P_2P_3} = \sqrt{(-3-1)^2 + (2-8)^2}$$

$$\overrightarrow{P_2P_3} = \sqrt{(-4)^2 + (-6)^2}$$

$$\overrightarrow{P_2P_3} = \sqrt{(16) + (36)}$$

$$\overrightarrow{P_2P_3} = \sqrt{52}$$

$$\overrightarrow{P_2P_3} = \underline{7.21}$$

Distancia 3 - P_3P_4

$$\overrightarrow{P_3P_4} = \sqrt{(1-(-3))^2 + (-8-2)^2}$$

$$\overrightarrow{P_3P_4} = \sqrt{(4)^2 + (-10)^2}$$

$$\overrightarrow{P_3P_4} = \sqrt{(16) + (100)}$$

$$\overrightarrow{P_3P_4} = \sqrt{116}$$

$$\overrightarrow{P_3P_4} = \underline{10.77}$$

Distancia 4 - P_4P_1

$$\overrightarrow{P_4P_1} = \sqrt{(4-1)^2 + (4-(-8))^2}$$

$$\overrightarrow{P_4P_1} = \sqrt{(3)^2 + (12)^2}$$

$$\overrightarrow{P_4P_1} = \sqrt{(9) + (144)}$$

$$\overrightarrow{P_4P_1} = \sqrt{153}$$

$$\overrightarrow{P_4P_1} = \underline{12.36}$$

Pendientes: ejercicio 1.

Pendiente 1 - P₁P₂.

$$m = \frac{y^2 - y^1}{x^2 - x^1} = \frac{8 - 4}{1 - 4} = \frac{4}{-3} = -\frac{4}{3}$$

$$\theta = \arctan m = \arctan\left(-\frac{4}{3}\right) =$$

$$\theta = \underline{53^\circ 7' 48.37''}$$

Pendiente 2 - P₂P₃.

$$m = \frac{y^2 - y^1}{x^2 - x^1} = \frac{2 - 8}{-3 - 1} = \frac{-6}{-4} = \frac{6}{4}$$

$$\theta = \arctan m = \arctan\left(\frac{6}{4}\right)$$

$$\theta = \underline{56^\circ 18' 35.76''}$$

Pendiente 3 - P₃P₄.

$$m = \frac{y^2 - y^1}{x^2 - x^1} = \frac{-8 - 2}{1 - (-3)} = \frac{-10}{4} = -\frac{10}{4}$$

$$\theta = \arctan m = \arctan\left(-\frac{10}{4}\right) =$$

$$\theta = \underline{68^\circ 11' 54.93''}$$

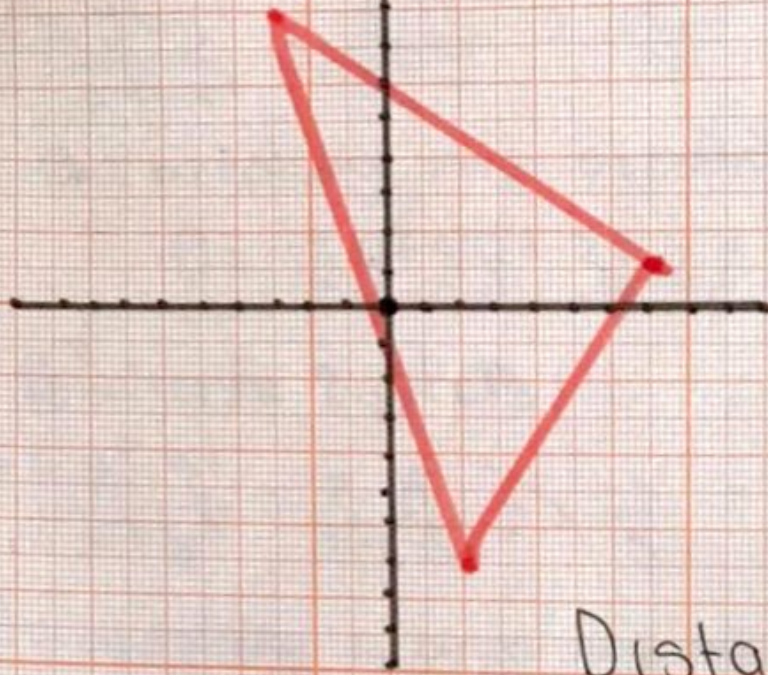
Pendiente 4 - P₄P₁.

$$m = \frac{y^2 - y^1}{x^2 - x^1} = \frac{4 - (-8)}{4 - 1} = \frac{12}{3}$$

$$\theta = \arctan m = \arctan\left(\frac{12}{3}\right) =$$

$$\theta = \underline{75^\circ 57' 49.52''}$$

Ejercicio 2 -



$$P_1 (-7, 9)$$
$$P_2 (-3, 8)$$
$$P_3 (2, -7)$$

Distancias:

Distancia 1 - $P_1 P_2$

$$P_1 P_2 = \sqrt{(-3-7)^2 + (8-9)^2}$$

$$P_1 P_2 = \sqrt{(-10)^2 + (-1)^2}$$

$$P_1 P_2 = \sqrt{(100)^2 + (1)}$$

$$P_1 P_2 = \sqrt{101}$$

$$P_1 P_2 = \underline{10.05}$$

Distancia 2: $P_2 P_3$

$$P_2 P_3 = \sqrt{(2-(-3))^2 + (-7-8)^2}$$

$$P_2 P_3 = \sqrt{(5)^2 + (-15)^2}$$

$$P_2 P_3 = \sqrt{(25) + (225)}$$

$$P_2 P_3 = \sqrt{250}$$

$$P_2 P_3 = \underline{15.81}$$

Distancia 3 - $P_3 P_1$

$$P_3 P_1 = \sqrt{(7-2)^2 + (9-(-7))^2}$$

$$P_3 P_1 = \sqrt{(5)^2 + (16)^2}$$

$$P_3 P_1 = \sqrt{(25) + (256)}$$

$$P_3 P_1 = \sqrt{281}$$

$$P_3 P_1 = \underline{16.76}$$

Distancia 4 - $P_3 P_2$

Pendientes Ejercicio 2.

$$m = \frac{y^2 - y^1}{x^2 - x^1} = \frac{8 - 1}{-3 - 7} = \frac{7}{-10} = -\frac{7}{10}$$

$$\theta = \arccotang m = \arccotang (7/10)$$

$$\theta = \underline{34^\circ 59' 31.27''}$$

Pendiente 2 $P_2 P_3$

$$m = \frac{y^2 - y^1}{x^2 - x^1} = \frac{7 - 8}{2 - (-3)} = \frac{-1}{5} = -\frac{1}{5}$$

$$\theta = \arccotang m = \arccotang (1/5)$$

$$\theta = \underline{11^\circ 18' 35.76''}$$

Pendiente 3 $P_3 P_1$

$$m = \frac{y^2 - y^1}{x^2 - x^1} = \frac{1 - 7}{7 - 2} = \frac{-6}{5} = -\frac{6}{5}$$

$$\theta = \arccotang m = \arccotang (6/5)$$

$$\theta = \underline{50^\circ 11' 39.99''}$$