Razones Dadas

$r_x = -3 + 1/3\,(7) = -\frac{1}{2} = \frac{1}{2}$

P_1P_2

$r_y = \frac{7 + 1/3\,(3)}{1 + 1/3} = 5\,\frac{3}{4}$

$r_x = \frac{2 + 1/3\,(-3)}{1 + 1/3} = \frac{3}{4}$

P_3P_1

$r_y = \frac{-7 + 1/3\,(8)}{1 + 1/3} = -3\,\frac{1}{4}$

Angulos

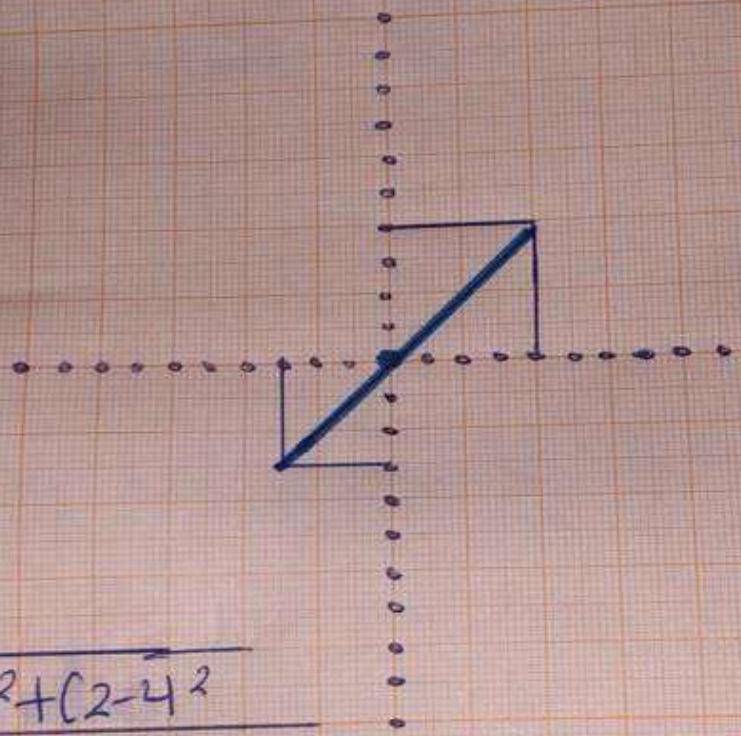
$\theta = \text{arcotang } m = \frac{7}{10} = 34°59'3.1-27''$ (P_1P_2)

$\theta = \text{arcotang } m = \frac{8}{5}$ $57°59'40.62$ (P_2P_3)

$\theta = \text{arcotang } m = \frac{15}{5} = 71°33'54.18$ (P_3P)

Grafica

$P_1(4,4)$
$P_2(-3,2)$



Distancias

$$P_1P_2 = \sqrt{(-3-4)^2+(2-4)^2}$$
$$P_1P_2 = \sqrt{(-7)^2+(-2)^2}$$
$$P_1P_2 = \sqrt{(49)+(4)}$$
$$P_1P_2 = \sqrt{53}$$
$$P_1P_2 = 7.28$$

$$P_2P_1 = \sqrt{(4-(-3)^2+(4-2)^2}$$
$$P_2P_1 = \sqrt{(7)^2+(2)^2}$$
$$P_2P_1 = \sqrt{(49)+(4)}$$
$$P_2P_1 = \sqrt{53}$$
$$P_2P_1 = 7.28$$

Pendientes

$$\frac{2-4}{-3-4} = \frac{+2}{-+7} = \frac{2}{7}$$

Angulos

$m =$

$\theta = \text{arcotang } m = \frac{2}{7} = 15°56'43.434$

Punto Medio

$$Pmx = \left(\frac{4+(-3)}{2}\right) = \frac{1}{2} = 0.5$$

$$Pmx = \left(\frac{4+2}{2}\right) = \frac{6}{2} = 3$$

$Pmx = (0.5, 3)$

Pendientes

$P_1 P_2$

$$m = \frac{1-8}{7-(3)} = -\frac{7}{2} = \frac{7}{10}$$

$P_2 P_3$

$$m = \frac{-7-1}{2-7} = \frac{-8}{-5} = \frac{8}{5}$$

$P_3 P_1$

$$m \frac{8-(-7)}{-3-2} = \frac{15}{5} = \frac{15}{5}$$

Punto Medio

$P_{mx} = \frac{-3+7}{2} = \frac{4}{2} = 2$

$P_1 P_2$

$P_{mx}(2, 3.5)$

$P_{my} = \frac{8-1}{2} = \frac{7}{2} = 3.5$

$P_{mx} = \frac{7+2}{2} = \frac{9}{2} = 4.5$

$P_2 P_3$

$P_{mx}(4.5, 3)$

$P_{my} = \frac{1+(-7)}{2} = \frac{-6}{2} = 3$

$P_{mx} = \frac{2+(-3)}{2} = \frac{-1}{2} = 0.5$

$P_3 P_1$

$P_{mx} = (0.5, 0.5)$

$P_{my} = \frac{-7+8}{2} = \frac{1}{2} = 0.5$

Razones dadas

$$rx = \frac{4 + 1/3(2)}{1 + 1/3} = 9 = \frac{7}{2}$$

$$ry = \frac{4 + 1/3\ (2)}{1 + 1/3} = \frac{7}{2}$$