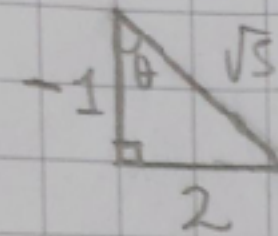


Si el lado final de un ángulo θ pasa por el punto $(-1; 2)$, calcula $J = (\operatorname{sen}\theta - \operatorname{cos}\theta)^2$.

1) $(-1; 2)$ $J = (\operatorname{sen}\theta - \operatorname{cos}\theta)^2$



$$2^2 + (-1)^2 = x^2$$

$$4 + 1 = x^2$$

$$5 = x^2$$

$$\sqrt{5} = x$$

$$\left(\frac{2}{\sqrt{5}} - \frac{(-1)}{\sqrt{5}}\right)^2$$

$$\left(\frac{3}{\sqrt{5}}\right)^2$$

$$\left(\frac{3}{\sqrt{5}} \cdot \frac{\sqrt{5}}{\sqrt{5}}\right)$$

$$\left(\frac{3\sqrt{5}}{5}\right)^2$$

$$\frac{3^2 \cdot 5}{5^2}$$

$$\frac{3^2}{5}$$

$$\frac{9}{5}$$

Halla el valor de $F(180^\circ)$; si:

$$F(x) = \frac{\cos\left(\frac{x}{2}\right) + \cos(2x) + \cos\left(\frac{3x}{2}\right)}{\sec(2x) - \cos x}$$

1)
 $F(180)$

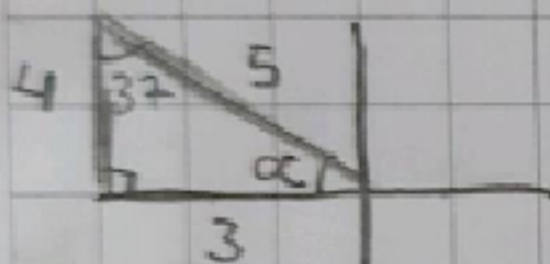
$$F(180) = \frac{\cos(90) + \cos(360) + \cos(270)}{\sec(360) - \cos 180}$$
$$F(180) = \frac{0 + 1 + 0}{1 - (-1)}$$
$$F(180) = \frac{1}{2}$$

$$\text{Si } \cos \alpha = -\frac{3}{5} \wedge \alpha \in \text{II C.}$$

Halla el valor de:

$$R = \sqrt{\frac{3 \operatorname{sen}^2 \alpha - 4 \cos^2 \alpha}{5 \tan \alpha}}$$

3) $\cos \alpha = -\frac{3}{5}$ $\alpha \in \text{II C}$ + positivo



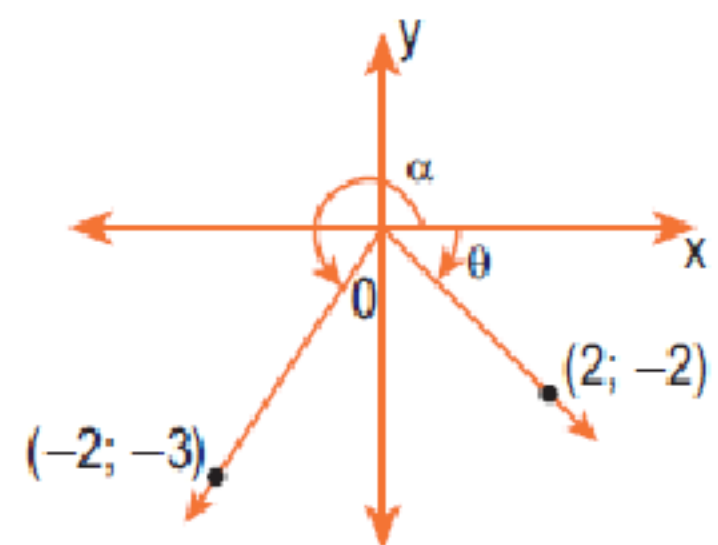
$$\alpha = 53$$

$$R = \sqrt{\frac{3\left(\frac{4}{5}\right)^2 - 4\left(\frac{3}{5}\right)^2}{5\left(\frac{4}{3}\right)}}$$

$$R = \sqrt{\frac{\frac{48}{25} - \frac{36}{25}}{\frac{20}{3}}}$$

$$R = \sqrt{\frac{\frac{12}{25}}{\frac{20}{3}}} \quad ???$$

Del gráfico mostrado:



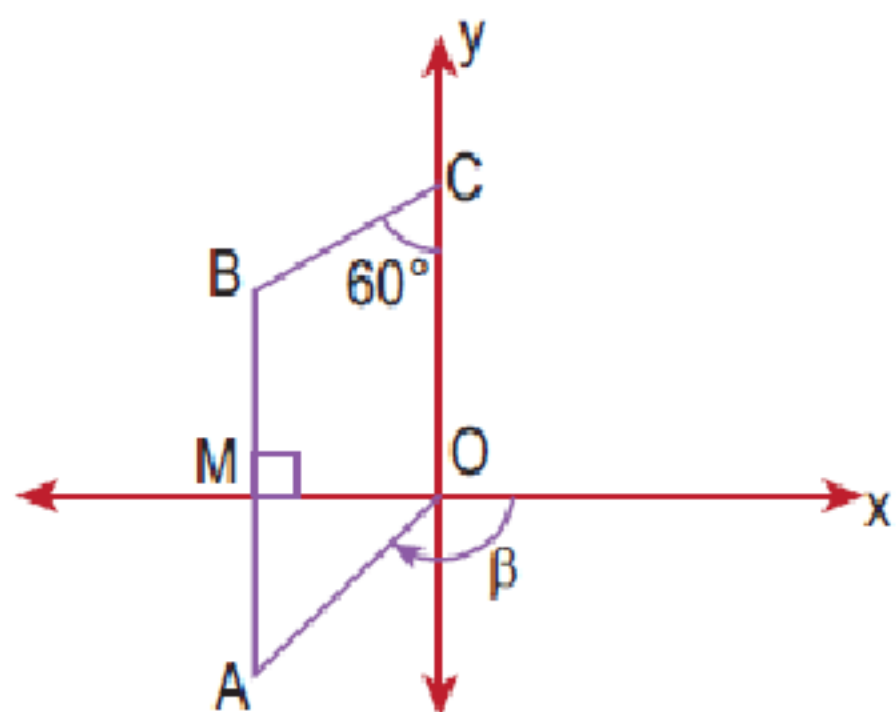
Halla el valor de:

$$R = \cot\alpha + \operatorname{sen}\theta - \tan\alpha \cdot \tan\theta$$

Si $\theta \in (40^\circ; 100^\circ]$.

Halla el signo de $P = \tan\frac{\theta}{2} + \cos\left(-\frac{\theta}{4}\right)$

Del gráfico, halla: $\text{sen}\beta$.



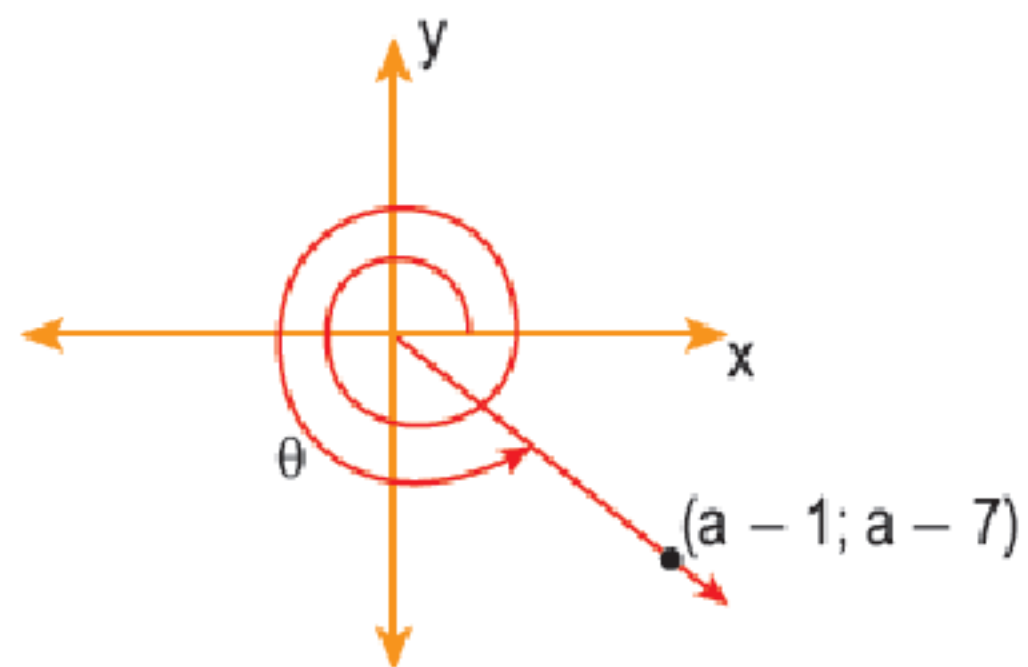
Si: $BM = MA = BC$; $\overrightarrow{AB} \parallel \overrightarrow{OC}$

6)

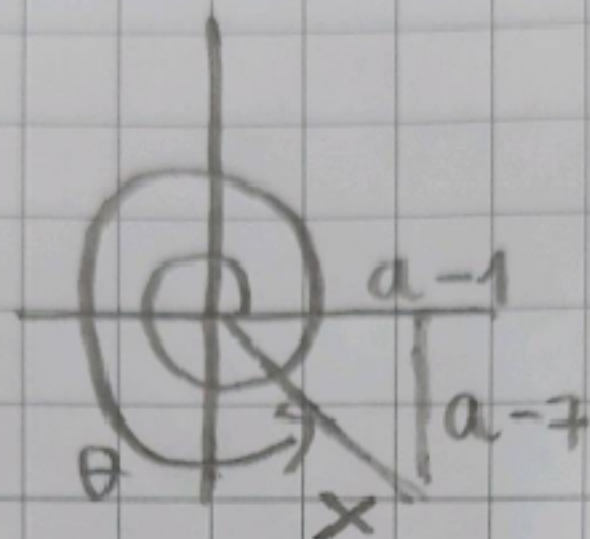
III Cuadrante es negativo

$$\text{sen } \beta = -\left(\frac{x}{2x}\right)$$
$$\text{sen } \beta = -\frac{1}{2}$$

Del gráfico; si $\operatorname{sen}\theta + 2\operatorname{cos}\theta = 0$, calcula a .



7)



$$\frac{a-7}{x} + \frac{2(a-1)}{x} = 0$$

$$a-7 + 2a-2 = 0$$

$$3a = 9$$

$$\underline{a = 3}$$

