

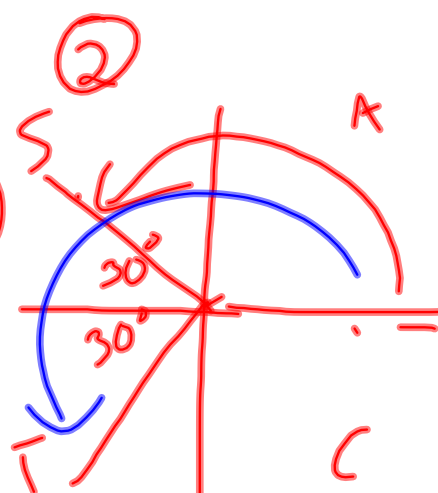
Determine θ if $\cos \theta = -0.87$

$$\textcircled{1} \quad \cos \theta_R = 0.87$$

$$\therefore \theta_R = \cos^{-1}(0.87) \\ \approx 30^\circ$$

$$\theta_P = 180^\circ - 30^\circ \\ = 150^\circ$$

$$\theta_P = 180^\circ + 30^\circ \\ = 210^\circ$$



$$\tan \theta = -2.45$$

$$\tan \theta_R = 2.45$$

$$\theta_R = \tan^{-1}(2.45)$$

$$\theta_R = 67.79$$

$$\theta_R = 68^\circ$$

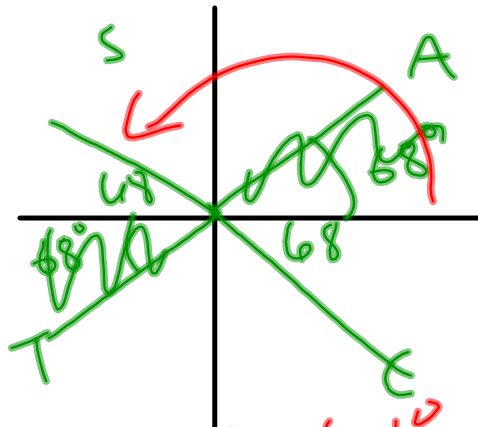
$$\theta_P = 68^\circ$$

$$\theta_P = 180^\circ + 68^\circ = 248^\circ$$

$$\theta_P = 180^\circ - 68^\circ$$

$$= 112^\circ$$

$$\theta_P = 360^\circ - 68^\circ = 292^\circ$$



$$\cos \theta = 0.765$$

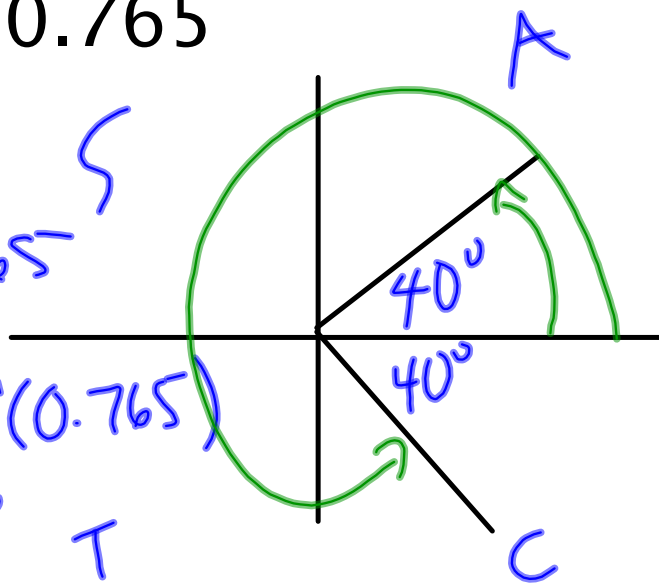
Find θ

$$\textcircled{1} \cos \theta_R = 0.765$$

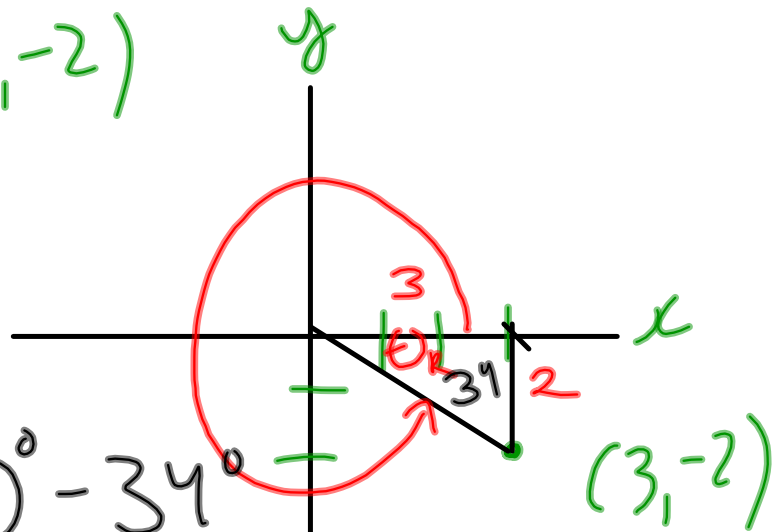
$$\theta_R = \cos^{-1}(0.765)$$

$$= 40^\circ$$

$$\textcircled{2} \begin{aligned} \theta_P &= 40^\circ \\ \theta_I &= 360^\circ - 40^\circ = 320^\circ \end{aligned}$$



ends at $(3, -2)$



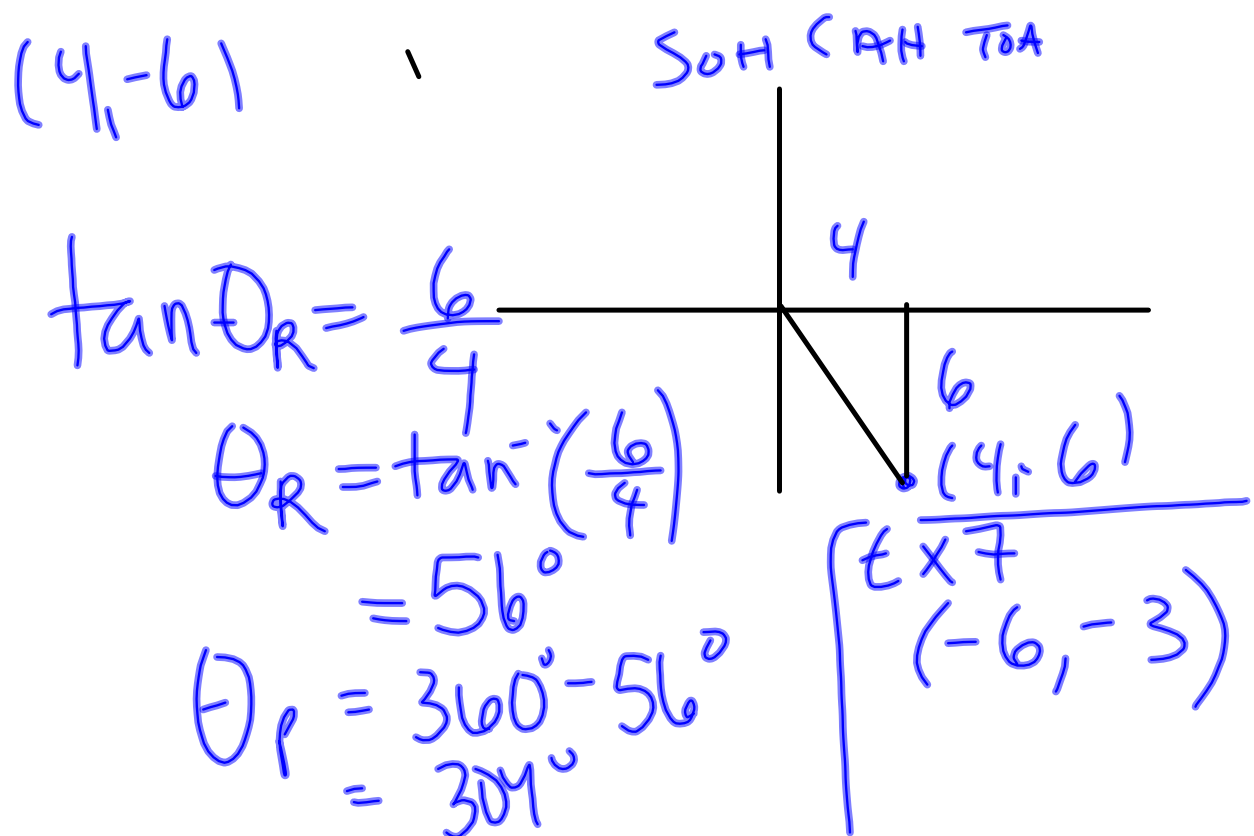
$$\theta_p = 360^\circ - 34^\circ$$

$$= 326^\circ$$

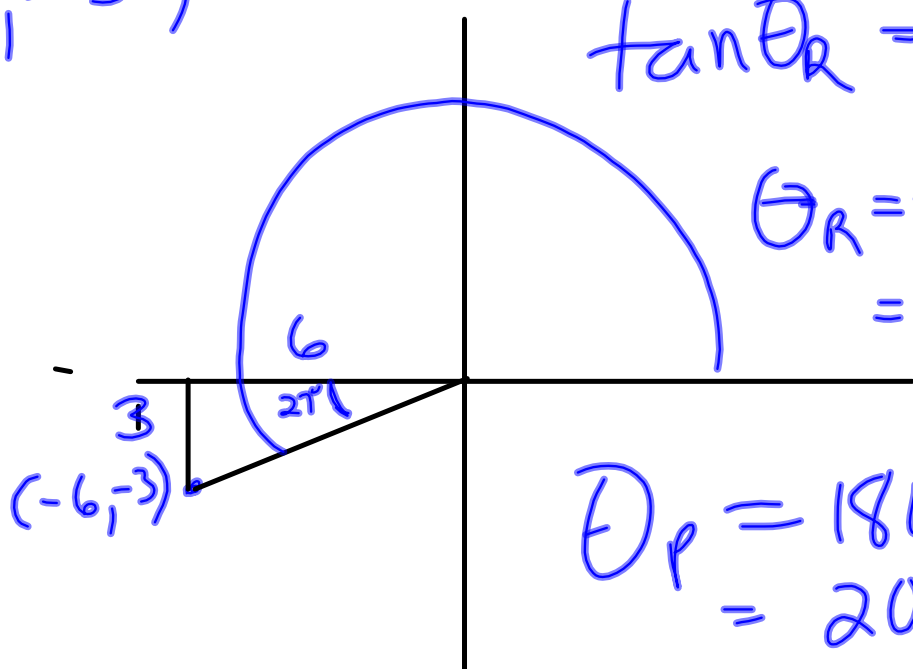
$$\tan \theta_R = \frac{2}{3}$$

$$\theta_R = \tan^{-1}\left(\frac{2}{3}\right)$$

$$= 34^\circ$$



$(-6, -3)$



$$\tan \theta_R = \frac{3}{6}$$

$$\theta_R = \tan^{-1}\left(\frac{3}{6}\right) = 27^\circ$$

$$\theta_P = 180^\circ + 27^\circ = 207^\circ$$

Problem 1: Determine if $\tan 187$ is positive or negative. Justify your answer.

Problem 2: Explain what is the same and different about $\sin 200$ and $\sin 20$. Why?

Problem 3: Explain what is the same and different about $\tan 160$ and $\tan 340$. Why?

Problem 4: Determine the measure of θ if $\cos \theta = -0.8765$

Problem 5: Determine the measure of the angle whose terminal arm ends at $(-4, 5)$.

Problem 6: Determine if θ is obtuse, acute or either if $\tan \theta = -0.75$