

Answer on Question#39428, Math, Trigonometry

We are given $0 < \theta < 2\pi$, $\tan \theta = -0.6$, $\sin \theta < 0$.

Since $\tan \theta = \frac{\sin \theta}{\cos \theta} = -0.6 < 0$ and $\sin \theta < 0$, thus $\cos \theta > 0$, so $-\frac{\pi}{2} < \theta < \frac{\pi}{2}$. Solution $\theta = \arctan(-0.6) \approx -30.96 \text{ degrees}$ satisfies given conditions.