

If you shift the graph of $y = \cos \theta$ by $\frac{\pi}{2}$ units to the right, the hill that had the y -axis running through the center will now be positioned over the interval $[0, \pi]$. This is also true of the graph of $y = \sin \theta$. The rest of the graph will consist of the repeating valley and hill pattern. This is the graph of $y = \sin \theta$.