The effect of subtracting $\frac{\pi}{2}$ from the input of the function is to shift the graph of $y = \sin\theta$ to the right by $\frac{\pi}{2}$ units. So, for example, the valley that was on the interval $[-\pi, 0]$ in the graph of $y = \sin\theta$ becomes a valley with the *y*-axis running through the center in the graph of $y = \sin\left(\theta - \frac{\pi}{2}\right)$. The hill and valley pattern repeats on both sides and this is a description of the graph shown.