You may have recognized that there is one high point, where the sine function equals 1, and one low point, where the sine function equals -1, and that they are π units apart. However, you incorrectly located them along the horizontal axis. The correct answer is: when $\theta = -\dfrac{7\pi}{2}$, $\sin\theta = 1$; when $\theta = -\dfrac{5\pi}{2}$, $\sin\theta = -1$