Rewrite $\frac{11\pi}{3}$ as $2\pi + \frac{5\pi}{3}$. Now use the identity $\sin(\theta + 2\pi) = \sin\theta$ to simplify the calculation:

$$\sin\left(\frac{11\pi}{3}\right) = \sin\left(2\pi + \frac{5\pi}{3}\right) = \sin\left(\frac{5\pi}{3}\right) =$$

$$\sin(300^\circ) = -\frac{\sqrt{3}}{2}$$