$$|\psi_{\frac{\pi}{2}}\rangle$$

$$(0,1)$$

$$(-\frac{1}{\sqrt{2}},\frac{1}{\sqrt{2}})$$

$$(1,0)$$

$$|\psi_{\frac{\pi}{4}}\rangle$$

$$(-1,0)$$

$$\frac{3\pi}{4}$$

$$(-\frac{1}{\sqrt{2}},-\frac{1}{\sqrt{2}})$$

$$(-\frac{1}{\sqrt{2}},-\frac{1}{\sqrt{2}})$$

$$|\psi_{\frac{5\pi}{4}}\rangle$$

$$(0,-1)$$

$$|\psi_{\frac{3\pi}{4}}\rangle$$