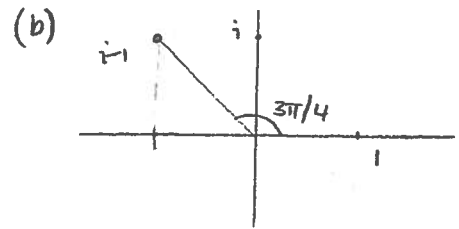


$$\frac{i}{2} = \frac{1}{2} \cdot e^{i(\frac{\pi}{2} + 2k\pi)}, \quad k \text{ integer}$$

$$\sqrt{\frac{i}{2}} = \frac{1}{\sqrt{2}} e^{i(\frac{\pi}{4} + k\pi)}$$

$$k=0: \quad \frac{1}{\sqrt{2}} e^{i\pi/4} = \frac{1}{\sqrt{2}} \left(\frac{1}{\sqrt{2}} + \frac{i}{\sqrt{2}} \right) = \frac{1}{2} (1+i)$$

$$k=1: \quad -\frac{1}{2} (1+i)$$



$$-1+i = \sqrt{2} \cdot e^{i(\frac{3\pi}{4} + 2k\pi)}$$

$$\sqrt{-1+i} = 2^{+1/4} e^{i(\frac{3\pi}{8} + k\pi)}$$

$$= \pm 2^{+1/4} e^{\frac{3\pi}{8} i}$$

$$= \pm 2^{+1/4} \left(\cos \frac{3\pi}{8} + i \sin \frac{3\pi}{8} \right)$$