

For the following exercises, evaluate each root.

- 41.** Evaluate the cube root of z when $z = 27 \operatorname{cis}(240^\circ)$. **42.** Evaluate the square root of z when $z = 16 \operatorname{cis}(100^\circ)$. **43.** Evaluate the cube root of z when $z = 32 \operatorname{cis}\left(\frac{2\pi}{3}\right)$.

- 44.** Evaluate the square root of z when $z = 32 \operatorname{cis}(\pi)$. **45.** Evaluate the square root of z when $z = 8 \operatorname{cis}\left(\frac{7\pi}{4}\right)$.

