$\begin{array}{c} \textbf{Projeto Mathematical Ramblings} \\ \text{https://sites.google.com/site/mathematical ramblings/} \\ \text{Em } \mathbb{U} = \mathbb{C}, \ \text{calcule } \sqrt[4]{16}. \end{array}$

Resolução:

$$\sqrt[4]{16} = \sqrt[4]{16} \left[\cos\left(\frac{2k\pi}{4}\right) + \sin\left(\frac{2k\pi}{4}\right)\right], \ k \in \mathbb{Z}$$

$$z = \sqrt[4]{16}$$

$$z = 2 \ \lor \ z = 2i \ \lor \ z = -2 \ \lor \ z = -2i$$