1.3.3.

Beispiele:

$\sqrt[n]{z}$

$k = 0,1,2,\dots,n-1$

$$w_k = \sqrt[n]{|z|} \cdot \left[\cos\left(\frac{\alpha}{n} + k \cdot \frac{2\pi}{n}\right) + j \cdot \sin\left(\frac{\alpha}{n} + k \cdot \frac{2\pi}{n}\right)\right]$$

$\sqrt[4]{3+4j}$

$|z| = \sqrt{3^2 + 4^2} = 5$

$$w_0 = 5 \cdot \left[\cos\left(\frac{\arctan\left(\frac{4}{3}\right)}{4} + 0 \cdot \frac{2\pi}{4}\right) + j \cdot \sin\left(\frac{arctan\left(\frac{4}{3}\right)}{4} + 0 \cdot \frac{2\pi}{4}\right)\right] = 1{,}46 + 0{,}34j$$

$w_1 = -0{,}34 + 1{,}46j$
$w_2 = -1{,}46 - 0{,}34j$
$w_3 = 0{,}34 - 1{,}46j$