$$w^3 = 27i \qquad w^n = a \cdot b \cdot i$$

n forskellige løsninger

$$r_w^3 \cdot e^{i\theta_w \cdot 3} = 27 \cdot e^{i\frac{\pi}{2}}$$

$$r_w^3 = 27 \Rightarrow r_w = 3$$

$$3 \cdot \theta_w = \frac{\pi}{2} + n \cdot 2\pi$$

$n = 0 \qquad 3\theta_w = \frac{\pi}{2} \Rightarrow \theta_w = \frac{\pi}{6}$

$n = 1 \qquad 3\theta_w = \frac{\pi}{2} + 2\pi \Rightarrow \theta_w = \frac{\pi}{6} + \frac{2\pi}{3} = \frac{5\pi}{6}$

$n = 2 \qquad 3\theta_w = \frac{\pi}{2} + 4\pi \Rightarrow \theta_w = \frac{\pi}{6} + \frac{4\pi}{3} = \frac{9\pi}{6}$

$$w_1 = 3 \cdot e^{i\frac{\pi}{6}} \qquad w_2 = 3 \cdot e^{i\frac{5\pi}{6}} \qquad w_3 = 3 \cdot e^{i\frac{3\pi}{2}}$$

$w_2 = 3e^{i\frac{5\pi}{6}} \qquad w_1 = 3 \cdot e^{i\frac{\pi}{6}} \qquad 3$

$w_3 = 3 \cdot e^{i\frac{3\pi}{2}}$