

$$\Rightarrow \begin{cases} \omega_0 = \cos 0 + i \sin 0 = 1 \\ \omega_1 = \cos\left(\frac{2\pi}{3}\right) + i \sin\left(\frac{2\pi}{3}\right) \\ \omega_2 = \cos\left(\frac{4\pi}{3}\right) + i \sin\left(\frac{4\pi}{3}\right) \end{cases}$$

$$\Rightarrow \omega_0 = \cos\left(\frac{3}{2}\pi\right) + i \sin\left(\frac{3}{2}\pi\right) \Rightarrow \boxed{\omega_0 = -i}$$

$$\omega_1 = \cos\left(\underbrace{\left(\frac{3}{2} + \frac{2}{3}\right)\pi}_{\frac{9+4}{6} = \frac{13}{6}}\right) + i \sin\left(\left(\frac{3}{2} + \frac{2}{3}\right)\pi\right) \Rightarrow \boxed{\omega_1 = \cos\left(\frac{13}{6}\pi\right) + i \sin\left(\frac{13}{6}\pi\right)}$$

$$\omega_2 = \cos\left(\underbrace{\left(\frac{3}{2} + \frac{4}{3}\right)\pi}_{\frac{9+8}{6} = \frac{17}{6}}\right) + i \sin\left(\left(\frac{3}{2} + \frac{4}{3}\right)\pi\right) \Rightarrow \boxed{\omega_2 = \cos\left(\frac{17}{6}\pi\right) + i \sin\left(\frac{17}{6}\pi\right)}$$

Donde usé que:  $z_1 = |z_1| e^{i\theta_1}$ ,  $z_2 = |z_2| e^{i\theta_2}$

$$\rightarrow z_1 z_2 = |z_1| |z_2| e^{i(\theta_1 + \theta_2)}$$

(los argumentos se suman, los módulos se multiplican)