

$$\begin{aligned} \frac{3.41}{02} \quad \text{I} & \quad \left(\frac{-1+i\sqrt{3}}{2} \right)^{128} + \left(\frac{-1-i\sqrt{3}}{2} \right)^{128} = \left(\text{cis } 120^\circ \right)^{128} + \left(\text{cis } 240^\circ \right)^{128} = \\ & = \text{cis } 240^\circ + \text{cis } 120^\circ = -\frac{1}{2} + \frac{\sqrt{3}}{2}i + \frac{1}{2} + \frac{\sqrt{3}}{2}i = -1 \end{aligned}$$

$$\frac{3.41}{02} \quad z^2 - 3z(1+i) + 5i = 0$$

$$\begin{aligned} \frac{3.41}{02} \quad \text{pa} & \quad z_{1,2} = \frac{3(1+i) \pm \sqrt{9(1+i)^2 - 20i}}{2} = \frac{3+3i \pm \sqrt{-2i}}{2} \\ & \quad -1+i \quad \text{u.} \quad 1+i \quad : \text{ k\u00f6n\u00f6n\u00f6n \u00e4r, m\u00e5tt\u00f6n \u00e4r} \quad | \quad 3.30 \quad \text{m\u00e5tt\u00f6n} \\ & \quad \frac{3+3i \pm \sqrt{-2i}}{2} = \frac{2+i}{1+i} \end{aligned}$$