

0.0.1 11. Hausaufgabe**Selbstgestellte Aufgabe**

$$E(105^\circ) = E(60^\circ + 45^\circ) = E(60^\circ)E(45^\circ) = \left(\frac{1}{2} + i\frac{1}{2}\sqrt{3}\right) \left(\frac{1}{2}\sqrt{2} + i\frac{1}{2}\sqrt{2}\right) = \frac{1}{4}\sqrt{2} - \frac{1}{4}\sqrt{6} + i\left(\frac{1}{4}\sqrt{2} + \frac{1}{4}\sqrt{6}\right); \Rightarrow$$

$$\cos 105^\circ = \frac{1}{4}\sqrt{2} - \frac{1}{4}\sqrt{6};$$

$$\sin 105^\circ = \frac{1}{4}\sqrt{2} + \frac{1}{4}\sqrt{6};$$