

LÖSUNG ZU 16f:

$$x^4 + 18x^2 + 72 = 0 \quad / \text{Substitution } x^2 = u$$

$$u^2 + 18u + 72 = 0 \quad / \text{Anwendung der kleinen Lösungsformel}$$

$$u_{1,2} = -9 \pm \sqrt{\frac{324}{4} - 72}$$

$$u_{1,2} = -9 \pm \sqrt{81 - 72}$$

$$u_{1,2} = -9 \pm \sqrt{9}$$

$$u_{1,2} = -9 \pm 3$$

$$u_1 = -6 \quad \rightarrow \quad \sqrt{\quad} \quad \rightarrow x_1 = -\sqrt{-6} \quad x_2 = \sqrt{-6} \quad \rightarrow \text{keine Lösung in } \mathbb{R}$$

$$u_2 = -12 \quad \rightarrow \quad \sqrt{\quad} \quad \rightarrow x_3 = -\sqrt{-12} \quad x_4 = \sqrt{-12} \quad \rightarrow \text{keine Lösung in } \mathbb{R}$$

$$L = \{ \}$$

