

Z8

$$K_0 = 1000 \text{ €,-}$$

$$i = 5\%$$

$$K_n = 1400 \text{ €,-}$$

$$K_n = K_0 \cdot (1+i)^n$$

$$1400 = 1000 \cdot (1+0,05)^n \quad | :1000$$

$$\frac{1400}{1000} = 1,05^n \quad | \log$$

$$\log 1,4 = \log (1,05)^n$$

$$\log 1,4 = n \cdot \log (1,05) \quad | : \log (1,05)$$

$$\log (1,4) / \log (1,05) = n = 17 \text{ Jahre}$$

nach 17 Jahren:  $K_7 = 1000 \text{ €} \cdot (1,05)^7 = 1407100,42$

$$Z = K_7 \cdot i = 1407100,42 \cdot 0,05 = 70355,02 \text{ €}$$