

**Lösung zu S.56/12:**

a)  $K_5 = K_0 \left(1 + \frac{p}{100}\right)^5 = 30000\text{DM} \left(1 + \frac{6}{100}\right)^5 = 30000\text{DM} \cdot 1,06^5 \approx 30000\text{DM} \cdot 1,338225578 \approx 40146,77\text{DM}$

b)

$$K_{20} = K_0 \left(1 + \frac{p}{100}\right)^{20} = K_0 \cdot 2$$

$$\left(1 + \frac{p}{100}\right)^{20} = 2$$

$$1 + \frac{p}{100} = \sqrt[20]{2}$$

$$\frac{p}{100} = \sqrt[20]{2} - 1$$

$$p = 100(\sqrt[20]{2} - 1) \approx 100(1,035264924 - 1)$$

$$\approx 100 \cdot 0,035264924$$

$$\approx 3,53$$