

## Lösungen

- 7/1 1: a)  $5^{12}$                       b)  $0,5^8$                       c)  $(-2)^0 = 1$
- 2: a)  $3,5^{25}$                       b)  $k^{16}$                       c)  $\left(-1\frac{1}{3}\right)^{-14}$
- 3: a)  $15^2$                       b)  $(x \cdot y \cdot z)^{-3}$                       c)  $5^7$
- 4: a)  $7^{-3}$                       b)  $(-2,2)^{-6}$                       c)  $2^3$
- 5: a)  $\left(\frac{1}{7}\right)^{-2} = 49$                       b)  $(-2)^5$                       c)  $\left(\frac{1}{3}\right)^{-1} = 3$
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- 7/2 a)  $\mathbb{L} = \{1, 6\}$                       b)  $\mathbb{L} = \{x \mid x \geq -101\}$                       c)  $\mathbb{L} = \{x \mid x \leq -15,5\}$
- d)  $\mathbb{L} = \{x \mid x < -1,5\}$                       e)  $\mathbb{L} = \{-4, 6\}$                       f)  $\mathbb{L} = \{x \mid x < -\frac{3}{4}\}$
- g)  $\mathbb{L} = \{x \mid x \leq -10\}$
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- 7/4 1.1:  $Z_{\text{Jahr1}} = 35,25 \text{ €}$                       1.2:  $Z_{\text{Jahr2}} = 36,57 \text{ €}$
- 2:  $K_{\text{Jahr5}} = 13700,87 \text{ €}$
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- 7/7  $\delta_1 = 180^\circ - 112^\circ$                        $\delta_1 = 68^\circ$                       (Nebenwinkel)
- $\alpha = \delta_1$                        $\alpha = 68^\circ$                       (Stufenwinkel)
- $\delta_2 = \delta_1$                        $\delta_2 = 68^\circ$                       (Scheitelwinkel)
- $\delta_3 = 70^\circ$                       (Wechselwinkel)
- $\gamma = 180^\circ - 68^\circ - 70^\circ$                        $\gamma = 42^\circ$                       (Innenwinkelsumme im Dreieck)