

Lösung zu 352:

$$\begin{aligned} \text{a) } f(x) &= a \cdot b^x \\ f(0) &= 1 & \rightarrow & \quad a = 1 \\ f(1) &= 4 & \rightarrow & \quad b = 4 \end{aligned}$$

$$f(x) = 4^x$$

$$\begin{aligned} \text{b) } f(0) &= 1 & \rightarrow & \quad a = 1 \\ f(1) &= 3 & \rightarrow & \quad b = 3 \end{aligned}$$

$$f(x) = 3^x$$

$$\begin{aligned} \text{c) } f(0) &= 3 & \rightarrow & \quad a = 3 \\ f(1) &= 7 & \rightarrow & \quad 3b = 7 & \rightarrow & \quad b = \frac{7}{3} \end{aligned}$$

$$f(x) = 3 \cdot \left(\frac{7}{3}\right)^x$$

$$\begin{aligned} \text{d) } f(0) &= -2 & \rightarrow & \quad a = -2 \\ f(1) &= -3 & \rightarrow & \quad -2b = -3 & \rightarrow & \quad b = \frac{3}{2} \end{aligned}$$

$$f(x) = -2 \cdot \left(\frac{3}{2}\right)^x$$

$$\begin{aligned} \text{e) } f(0) &= -2 & \rightarrow & \quad a = -2 \\ f(1) &= -1 & \rightarrow & \quad -2b = -1 & \rightarrow & \quad b = \frac{1}{2} \end{aligned}$$

$$f(x) = -2 \cdot \left(\frac{1}{2}\right)^x$$

$$\begin{aligned} \text{f) } f(0) &= 3 & \rightarrow & \quad a = 3 \\ f(1) &= 1 & \rightarrow & \quad 3b = 1 & \rightarrow & \quad b = \frac{1}{3} \end{aligned}$$

$$f(x) = 3 \cdot \left(\frac{1}{3}\right)^x$$

