Probe 2:

$$a \cdot 4^{x+1} + b \cdot 4^{x-1} = c$$

$$a \cdot 4^x \cdot 4^1 + b \cdot 4^x \cdot 4^{-1} = c$$

$$4^x \cdot \left(4a + \frac{b}{4}\right) = c \quad | : \left(4a + \frac{b}{4}\right)$$

$$4^x = \frac{c}{\left(4a + \frac{b}{4}\right)} \quad | \cdot \ln$$

$$\ln 4 \cdot x = \ln\left(\frac{c}{4a + \frac{b}{4}}\right) \quad | : \ln 4$$

$$x = \frac{\ln\left(\frac{c}{4a + \frac{b}{4}}\right)}{\ln 4}$$ f

Lösung: $\dfrac{\ln\left(\frac{c-a+2b}{a+b}\right)}{\ln(4)}$