$$\text{I} \quad 10\,000 = k \cdot 1\,000\,000^b$$

$$\text{II} \quad 3000 = k \cdot 100\,000^b$$

I nach k: $\quad k = \frac{10\,000}{1\,000\,000^b} = \frac{1}{100^b}$

k in II: $\quad 3000 = \frac{1}{100^b} \cdot 100\,000^b = \frac{1000^b}{1^b} = 1000^b$

$$\ln(3000) = b \cdot \ln(1000)$$

$$b = \frac{\ln(3000)}{\ln(1000)} = 1.159$$

$k =$