

LOGARITMIYHTÄLÖT

esim 1.

$$2^x = 8$$

$$2^x = 2^3$$

$$x = 3$$

esim 2

$$2^x = 7 \quad | \lg$$

$$\lg 2^x = \lg 7$$

$$x \lg 2 = \lg 7 \quad | : \lg 2$$

$$x = \frac{\lg 7}{\lg 2} (\approx 2,8073)$$

$$x \approx 2,807$$

esim 3

$$9 \cdot 2^x = 810 \quad | : 9$$

$$2^x = 90 \quad | \ln$$

$$\ln 2^x = \ln 90$$

$$x \ln 2 = \ln 90$$

$$x = \frac{\ln 90}{\ln 2} \approx 6,4918 \approx 6,492$$

esim 4

$$8 \cdot 3^x = 5 \cdot 7^x \quad | : 8$$

$$3^x = \frac{5}{8} \cdot 7^x \quad | : 7^x$$

$$\frac{3^x}{7^x} = \frac{5}{8}$$

$$\left(\frac{3}{7}\right)^x = \frac{5}{8}$$

jne