

$$a) \quad \frac{2^x + 1}{2^x - 1} = -6 \quad (\text{samlas ihop } 2^x \text{: are " först})$$
$$\Leftrightarrow$$

$$2^x + 1 = -6(2^x - 1)$$
$$\Leftrightarrow$$

$$2^x + 1 = -6 \cdot 2^x + 6$$
$$\Leftrightarrow$$

$$7 \cdot 2^x = 5$$
$$\Leftrightarrow$$

$$2^x = \frac{5}{7} \quad (\text{logaritmers})$$

$$\Leftrightarrow$$

$$\lg 2^x = \lg \frac{5}{7}$$

$$\Leftrightarrow$$

$$x \cdot \lg 2 = \lg \frac{5}{7}$$

$$\Leftrightarrow$$

$$x = \frac{\lg \frac{5}{7}}{\lg 2}$$

$$b) N = a + b \lg \frac{c}{d} \quad \text{lös ut } c$$

$$\Leftrightarrow$$

$$N - a = b \cdot \lg \frac{c}{d}$$

$$\Leftrightarrow$$

$$\frac{N-a}{b} = \lg \frac{c}{d}$$

$$\Leftrightarrow$$

$$10^{\frac{N-a}{b}} = \frac{c}{d}$$

$$\Leftrightarrow$$

$$c = d \cdot 10^{\frac{N-a}{b}}$$

("tag" 10 potenser
för att få bort lg)