

ESN 268

$$\left(\frac{3}{2}\right)^x < \frac{27}{8} \quad \left(\frac{3}{2}\right)^x < \left(\frac{3}{2}\right)^3$$

(.) $x < 3$

N 277

$$0,1^x \leq 100$$

$$\left(\frac{1}{10}\right)^x \leq (10)^2 \left(\frac{1}{10}\right)^x \leq \left(\frac{1}{10}\right)^{-2}$$

(.) $x \geq -2$

N 281

$$4^x = (2^2)^x$$

$$\frac{2 \cdot 8}{4^x} > \frac{16^{-x}}{8}$$

$$\frac{2 \cdot 2^3}{2^{2x}} > \frac{2^{-4x}}{2^3}$$

$$2^{x-2x} \cdot 2^3 > 2^{-4x} \cdot 2^{-3}$$

$$(2)^{-x+3} > (2)^{-4x-3} \quad (.)$$

$$-x+3 > -4x-3$$

$$3x > -6 \quad x > -2$$

N 289

$$9 \left(\frac{2}{3}\right)^x + 2 + 4 \left(\frac{2}{3}\right)^{-x} \leq 0$$

$$\left(\frac{2}{3}\right)^x = t \quad \left(\frac{2}{3}\right)^{-x} = \left[\left(\frac{2}{3}\right)^x\right]^{-1} = \frac{1}{t}$$

$$9t + 2 + \frac{4}{t} \leq 0$$

$$\frac{9t^2 + 2t + 4}{t} \leq 0$$

N) $\Delta > 0 \quad 9t^2 + 2t + 4 > 0 \quad t = \frac{-1 \pm \sqrt{1-36}}{9}$

D) $\Delta > 0 \quad t > 0$

N	+	+	+		+	+	+
D	-	+	+		+	+	+
N	-	+	+		+	+	+

$t < 0 \quad \left(\frac{2}{3}\right)^x < 0$ MAI!





