

Simplify

$$81^{-2/4} = \frac{1}{\left(\sqrt[4]{81}\right)^2} = \frac{1}{3^2} = \frac{1}{9}$$

$$\frac{(e^{5x})^{-2/5}}{\ln e^2} = \frac{e^{-2x}}{2}$$

find all solutions

$$e^{x^2+2x} = e^{35}: \quad x^2 + 2x = 35: \quad 0 = x^2 + 2x - 35 = (x+7)(x-5): \quad x = 5/ -7$$

$$\ln(x^2 - 1) = 1 = \ln e: \quad x^2 - 1 = e: \quad x^2 = e + 1: \quad x = \pm\sqrt{e+1}$$

$$X \xrightarrow[\text{inj}]{\mathcal{V}} Y \Leftrightarrow {}^{A \cap B}\mathcal{V} = {}^A\mathcal{V} \cap {}^B\mathcal{V}$$