2001

Solve: $\ln x - \ln 5 = 0$

5

Solve: $\ln x = -7$

$$e^{-7}$$

Solve: $\ln x = -1$

≈ 0.368

Solve: $\log_x 16 = 2$

4

Solve: $\log x = -1$

$$\frac{1}{10}$$

Solve: $\ln(2x+1)=5$

$$\frac{e^5 - 1}{2} \approx 73.7066$$

Solve: $\ln x = -2$

≈ 0.135

Solve: $-2+2\ln(3x)=17$

≈ 4453.242

Solve: $\log(z-3)=2$

103

Solve: $\ln\sqrt{x+2}=1$

≈ 5.389

Solve: $\log_4 x - \log_4 (x-1) = \frac{1}{2}$

2

Solve: $\ln\sqrt{x-8}=5$

$\approx 22{,}034.466$

Solve: $\frac{1-\ln x}{x^2}=0$

$$e \approx 2.7183$$

The numbers *y* of hospitals in the United States from 1995 to 2003 can be modeled by $y = 7247 - 596.5 \ln t$, $5 \le t \le 13$, where *t* represents the year, with *t = 5* corresponding to 1995. During which year did the number of hospitals fall to 5800?