

Pre-Calculus

KEY

Solve an exponential equation. Give the EXACT answer.

1. $x = \log 600 = \log 100 + \log 6 = 2 + \log 6$

2. $x = \frac{\log 500}{2} = \frac{\log 100}{2} + \frac{\log 5}{2} = 1 + \frac{1}{2} \log 5 = 1 + \log \sqrt{5}$

3. $x = \ln 100 - 4$

4. $x = \frac{\ln 50}{3} = \frac{1}{3} \ln 50 = \ln \sqrt[3]{50}$

5. $x = \frac{\ln(0.01) - 1}{3} = \ln \sqrt[3]{0.01} - \frac{1}{3}$

6. $x = \frac{\ln 95}{4} = \ln \sqrt[4]{95}$

7. $e^x = -\frac{1}{2} \rightarrow \emptyset$

8. $x = \ln 7 - 2$

9. $x = \ln \left(\frac{21}{2} \right) + 3$

10. $e^{4x+1} = -21 \rightarrow \emptyset$