

Exponential & Logarithmic Equations

1. $27^{2x} = \left(\frac{1}{243}\right)^{x+3}$

2. $\log_{3x} 54 = 2$

3. $\frac{\log(2x-7)}{\log(x+8)} = 1$

4. $\log_7(8 + 3x) = \log_7 x$

5. $2\log_5 x + \log_5 3 = \log_5 48$

6. $4^{x+2} = 250$