

AP Precalculus - M3Y & M3Z

Exponentials and Logarithms - Homework 1

Solve the following equations:

(i) $\log_3(4x - 7) = 2$

(ii) $\ln(3x - 12 + e^2) = 2$

(iii) $\log_2(x^2 - 4) = 4$

(iv) $\log(x + 3) - \log(2x + 8) = 0$

(v) $\log_{\frac{1}{5}}(x^2 - 6x) = \log_{\frac{1}{5}}(18 - 3x)$

(vi) $\ln(2^x - 8) = \ln(2^{x-2} + 4)$

(vii) $3 \cdot 2^x + 4 = 36 - 13 \cdot 2^x$

(viii) $e^{x^2-7x} = \frac{1}{e^{10}}$

(ix) $5^{x-1} = 3^x$