

Name _____
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Date _____
Pre Calculus

Logarithm Equations with Logs on Both Sides

Solve each equation

1. $\log_9 3x = \log_9 15$

2. $\ln(4x-1) = \ln(2x+3)$

3. $2\log_4 x = \log_4 25$

4. $\frac{1}{2}\log_7 x = \log_7 3$

5. $\log 2 + \log(x+5) = \log 40$

6. $\log(x-6) - \log(3) = \log 6$

$$7. \log x + \log(x-3) = \log 18$$

$$8. \log_2 x + \log_2(x-6) = \log_2 16$$

$$9. \log_3 2 + 2 \log_3 x = \log_3(7x-3)$$

$$10. \log_8(x-40) - \log_8(x-10) = \log_8(x+2)$$