

Solve each equation.

1. $\log_2(4x - 6) = \log_2(7x - 30)$

2. $\log 5x = \log(2x - 9)$

3. $\log(10 - 4x) = \log(12 - 3x)$

4. $\log_2(4p - 2) = \log_2(-5p + 5)$

5. $\log_5(4k - 5) = \log_5(2k - 1)$

6. $\ln(-2a + 9) = \ln(7 - 4a)$

$$7. \log x + \log 7 = \log 21$$

$$8. \log_3 3x + \log_3 4 = \log_3 24$$

$$9. \log_2 x - \log_2 3 = \log_2 6$$

$$10. \log(x + 1) + \log 3 = \log 18$$

$$11. \ln 2x - \ln 4 = \ln 2$$

$$12. \log_4(x - 3) - \log_4 7 = \log_4 3$$