

# Solving Natural Logarithms Practice Problems

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**Solve each equation.**

1)  $\ln 2x + \ln 8 = 1$

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

3)  $\ln (x + 4) - \ln 9 = 5$

4)  $\ln 10 - \ln (x - 9) = 4$

5)  $\ln (x + 5) + \ln 6 = \ln 15$

6)  $\ln (x + 9) - \ln 10 = 5$

7)  $\ln 5 - \ln (x - 10) = \ln 19$

8)  $\ln 4 - \ln (x - 7) = 2$

9)  $\ln 9 - \ln 3x = 5$

10)  $\ln (x + 9) - \ln 3 = 3$

## Answers to Solving Natural Logarithms Practice Problems

$$1) \left\{ \frac{e}{16} \right\}$$

$$5) \left\{ -\frac{5}{2} \right\}$$

$$9) \left\{ \frac{3}{e^5} \right\}$$

$$2) \left\{ \frac{2 - 3e^4}{e^4} \right\}$$

$$6) \{10e^5 - 9\}$$

$$10) \{3e^3 - 9\}$$

$$3) \{9e^5 - 4\}$$

$$7) \left\{ \frac{195}{19} \right\}$$

$$4) \left\{ \frac{10 + 9e^4}{e^4} \right\}$$

$$8) \left\{ \frac{4 + 7e^2}{e^2} \right\}$$