

## Practice

### Natural Logarithms

*Evaluate each expression.*

1.  $\ln 71$

2.  $\ln 8.76$

3.  $\ln 0.532$

4.  $\operatorname{antiln} -0.256$

5.  $\operatorname{antiln} 4.62$

6.  $\operatorname{antiln} -1.62$

*Convert each logarithm to a natural logarithm and evaluate.*

7.  $\log_7 94$

8.  $\log_5 256$

9.  $\log_9 0.712$

*Use natural logarithms to solve each equation or inequality.*

10.  $6^x = 42$

11.  $7^x = 4^{x+3}$

12.  $1249 = 175e^{-0.04t}$

13.  $10^{x+1} > 3^x$

14.  $12 < e^{0.048y}$

15.  $8.4 < e^{t-2}$

- 16. *Banking*** Ms. Cubbatz invested a sum of money in a certificate of deposit that earns 8% interest compounded continuously. The formula for calculating interest that is compounded continuously is  $A = Pe^{rt}$ . If Ms. Cubbatz made the investment on January 1, 1995, and the account was worth \$12,000 on January 1, 1999, what was the original amount in the account?