

Evaluate:

1.  $e^{\ln y}$

2.  $\ln e^{-4x}$

3.  $\ln e^{45}$

Solve each equation.

4.  $3e^x + 1 = 10$

5.  $\ln(3x) = 5$

6.  $2e^x - 16 = 0$

7.  $\ln(x + 1) = 9$

8.  $-3e^{4x} + 11 = 2$

9.  $\ln x + \ln 3x = 12$

10.  $\ln(x^2 + 12) = \ln x + \ln 8$

11.  $8 + 3e^{3x} = 26$

12.  $\ln x + \ln(x + 4) = \ln 5$

13. If you deposit \$150 in a savings account paying 4% interest compounded continuously, how much money will you have after 5 years? How long would it take you to double your money?

14. If you deposit \$100 in an account paying 3.5% interest compounded continuously, how much money will you have after 8 years? How long will it take for you to have \$250 in the account?