Unit 9.2 Natural Logarithms

1. Write as a logarithmic equation
    a. $e^y = 4$

    b. $e^x = 27$

    c. $e^{4x} = 16$

    d. $6e^{-x} = 8$

2. Write as an exponential expression
    a. $\ln(x+5) = 10$

    b. $\ln(3) = x$

    c. $\ln(x) = 1.54$

    d. $\ln(e) = 1$

3. Evaluate using a calculator and round to the nearest ten-thousandth
    a. ln (37.5) = _____
    b. ln (-14.9) = _____

4. Solve for x (round to the nearest hundredth)
    a. $6e^{-x} + 1 = 3$

    b. $\ln(x+5) = 7$

c. $\ln(x) = 3$

d. $e^{(2x-3)} = 7$

e. $\ln(x) = -8.3$

f. $0.2 \ln(x) = 0.0079$

g. $11^{(-x-9)} = 6^{-8x}$

h. $16^{-7x} = 5^{(x+10)}$