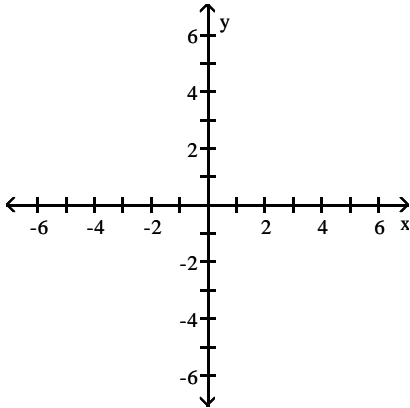


## Non-Calculator Chapter 4 Review

Graph the function.

1)  $f(x) = e^x$



- 2) a) What are the domain and range for the equation  $y = e^x$ ?  
b) What are the domain and range for the function

Write the logarithmic equation in exponential form.

3)  $\ln x = -7$

- 4) What is one ordered pair that is always on the graph of  $f(x) = a^x$ ?

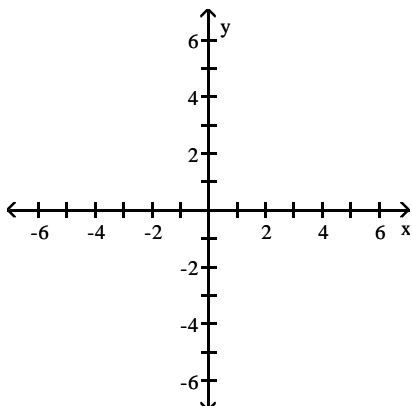
Find the value of the logarithm without using a calculator.

5)  $\ln \frac{1}{e^2}$

6)  $\log (0.001)$

Graph the function.

7)  $f(x) = \ln (x)$



Find the value of the logarithm without using a calculator.

8)  $\ln (1)$

9)  $\ln e^4$

10)  $\log_e \frac{1}{e}$

Write in logarithmic form.

11)  $8^{4/3} = 16$

12)  $p = 19^t$

13)  $7^2 = 49$

Use the properties of logarithms to evaluate the expression.

14)  $e^{\ln t}$

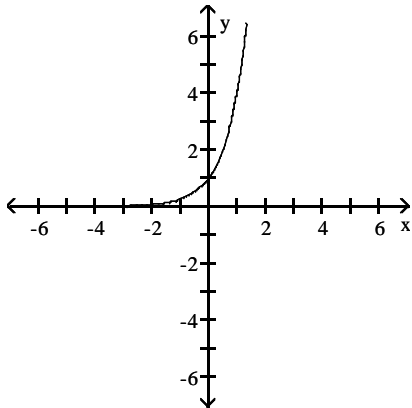
15)  $\ln e^2$

16)  $\ln e^5$

Answer Key

Testname: NONCALCREV4

1)



2) a) Domain:  $(-\infty, \infty)$ ; range:  $(0, \infty)$

b) Domain:  $(0, \infty)$ ; range:  $(-\infty, \infty)$

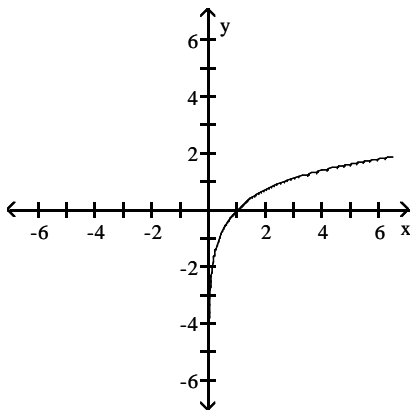
3)  $x = e^{-7}$

4)  $(0, 1)$  or  $(1, a)$

5) -2

6) -3

7)



8) 0

9) 4

10) -1

11)  $\log_8 16 = \frac{4}{3}$

12)  $\log_{19} p = t$

13)  $\log_7 49 = 2$

14) t

15) 2

16) 5