

Day 1 HW – Calculator Work &amp; Rewriting Logs./Expon.

Rewrite the equation in exponential form.

1)  $\ln 7 = 1.945$

2)  $\log_4 16 = 2$

3)  $\ln 1 = 0$

4)  $\log\left(\frac{1}{100}\right) = -2$

5)  $\ln e = 1$

6)  $\log_3\left(\frac{1}{81}\right) = -4$

Rewrite the equation in logarithmic form.

7)  $5^4 = 625$

8)  $e^2 = 7.389$

9)  $e^{-1} = \frac{1}{2.718}$

10)  $10^{-2} = \frac{1}{100}$

11)  $6^{-3} = \frac{1}{216}$

12)  $e^7 = 1096.633$

Use Logarithmic properties to simplify the following: DO NOT USE CALCULATOR

13)  $\log 10^{12}$

14)  $\ln e^{-21}$

15)  $10^{\log -7}$

16)  $e^{\ln 4}$

17)  $\log_2 2^5$

18)  $\log_7 7^{-1}$

Evaluate each expression in your calculator. (Round to 3 decimal places)

1.  $(3.4)^{6.8}$

2.  $5000(2^{-1.5})$

3.  $6^{2\pi}$

4.  $5^{-\pi}$

5.  $798^{\frac{1}{3}}$

6.  $100^{\sqrt{2}}$

7.  $e^{\frac{1}{2}}$

8.  $e^{-\frac{3}{4}}$

9.  $e^{9.2}$

10.  $e^{3.78}$

11.  $\log_2 16$

12.  $\log_{27} 9$

13.  $\log_{16} \left(\frac{1}{4}\right)$

14.  $\log_{10} 0.01$

15.  $\log_2 \left(\frac{1}{8}\right)$

16.  $\log_{10} 0.1$

17.  $\log 345$

18.  $\log 145$

19.  $\log \left(\frac{4}{5}\right)$

20.  $\log \left(\frac{25}{2}\right)$

21.  $\ln(4 + \sqrt{3})$

22.  $\ln \sqrt{42}$

23.  $6 \log 14.8$

24.  $-5.5 \ln 34$