

Chapter 1.4: More Logarithm Exercises

Calculus I

College of the Atlantic. Fall 2021

1. Solve for x :

$$10 = 2(3^x) . \quad (1)$$

2. Solve for z :

$$5z = 3^z . \quad (2)$$

3. Answer the following questions without using a calculator. You should be able to explain why the answers are what they are.

(a) What is $\ln(e)$?

(b) What is $\ln(1)$?

4. Use your calculator to answer the following questions:

(a) What is $\ln(2)$?

(b) What is $e^{-2.5}$?

5. Suppose that $f(t) = 100e^{-kt}$ and you know that $f(5) = 20$. Solve for k .

6. Write $f(t) = 100(2^t)$ in the form P_0e^{kt} .