

1050 Week at a Glance:

Week 6

Math 1050-90

Objectives:

3.3 Properties of Logarithms

- [Use properties to evaluate or rewrite logarithmic expressions.
- [Use properties of logarithms to expand or condense logarithmic expressions.
- [Use the change of base formula to rewrite and evaluate logarithmic expressions.
- [Use logarithmic functions to model and solve real-life problems.

3.4 Exponential and logarithmic equations

- [Solve simple exponential and logarithmic equations.
- [Solve more complex exponential and logarithmic equations.
- [Use exponential and logarithmic equations to model and solve real-life problems.

3.5 Exponential and logarithmic equations

- [Use exponential growth and decay functions to model and solve real-life problems

Study Tip of the Week:

Having taught this course a few times, I know that students often struggle with this topic... it just doesn't seem to make sense, like say solving polynomial equations does. There are a few reasons for this...

1. First, you have seen polynomials for MANY years. Exponents and logarithms may be new.
2. Second, you have to get used to the notation. Solving problems written in logarithmic form is hard. Problems written in exponential form are usually easier. Always try to rewrite a log problem into its equivalent exponential form.
3. Third, you have to FOLLOW THE RULES! And in order to follow the rules, you need to learn the rules. I'd recommend making definition cards for...
 - [the exponent properties (at the back of the book, in Appendix 2 (on page A13). For example, write product rule (or whatever will help you remember each rule) on one side and $a^m a^n = a^{m+n}$ on the other.
 - [The three properties of logarithms (page 222)
 - [one-to-one property (p 212)
 - [inverse properties (p212)

When you are solving equations in 3.4, for each step, ask yourself which property (or other principle in mathematics) you can use. Confirm you are using it correctly using your card. The example problems in Section 3.4 model this. This helps you "follow the rules". There will be problems like these on both Midterm 2 and the final. Best to figure them out now.

To Do:

For Lessons 3.3 – 3.5

- Book reading
- Print blank slides
- Watch lecture videos
- Practice Problems
- WebAssign Homework

Due by Sun 11 pm

- Canvas Quiz Week 6

Due by Mon of next week, 11 pm

- WebAssign HW 3.3
- WebAssign HW 3.4
- WebAssign HW 3.5