

Precalculus

Exponential and Logarithmic Functions

The list below contains the specific *learning targets* for the unit on exponential and logarithmic functions. Before the unit test, you should be able to place a check next to each statement as being true.

- I can describe how exponential and logarithmic functions are inverses of each other.
- I can analyze the behavior of a graph involving exponential and logarithmic expressions.
- I can solve equations involving exponential and logarithmic expressions.
- I can use exponential functions to solve problems involving growth, decay, and compound interest.
- I can apply basic logarithmic properties, including the change of base formula.

Textbook Assignments

The exercises below are from *Precalculus: A Graphing Approach* by Hungerford, Jovell, and Mayberry. These specific problems are the bare minimum that should be completed after each lesson, but you are encouraged to attempt more if needed.

- 5.2 Graphs of Exponential Functions **pg 343: 3, 5, 10, 11, 33, 44-48**
- 5.4 Graphs of Logarithmic Functions **pg 361: 37-40 (all), 41-51 (odd)**
- 5.5 Properties of Logarithms **pg 369: 1, 3, 11, 15**
- 5.5a Properties of Logarithms **pg 376: 21, 25, 41, 43, 47, 51, 61, 67**
- 5.6 Exponential Equations **pg 386: 3, 7, 9, 11, 15, 17, 19, 25**
- 5.6 Logarithmic Equations **pg 386: 35-51 (odd)**
- 5.3 Exponential Growth and Decay **pg 353: 39, 41, 43, 45, 49, 51, 53**
- 5.3 Compound Interest **pg 353: 11, 19, 23, 25, 29, 35**

Assignments are subject to change in class.