

Algebra 2, Unit 6: Exponential and Logarithmic Functions & Equations

Our Learning Goals:

We will...

- ✓ graph and analyze the effects of transformations on the exponential parent function and its key attributes.
- ✓ model exponential growth and decay functions.
- ✓ graph and analyze the effects of transformations on the logarithmic parent function as well as the natural log function.
- ✓ solve exponential and logarithmic equations.

Why do we study this?

- ❖ Exponential growth is the rate of growth increasing as time increases. Many quantities grow exponentially such as population, compound interest, and charge in a capacitor.
- ❖ Likewise, many quantities decay over time exponentially. Some examples include radioactive decay and the value of a car over time.

How we will show what we have learned...

Formative Assessments	Summative Assessments
Ongoing formative assessments during lesson and homework activities will help in monitoring learning and providing feedback for students.	Summative assessments to measure learning at the end of concepts will include the following: <ul style="list-style-type: none">• Test: Exponential Functions and Transformations• Test: Logarithmic Functions and Transformations• Unit 4 Exam (district wide)



Sample Problem:

Sally's parents invested \$500 in a bank account that paid 4.5% in annual interest. How much was in the account 18 years later when she graduated high school?

Additional Support:

- Check the teacher web page and Canvas page for notes, activities, and assignments.
- Search the topic on the web. We recommend using Khan Academy.
- Attend tutorials.