18 Topic: Log Applications

Content Area: **Mathematics**
Course(s): **Algebra 2**
Time Period: **Semester 2**
Length: **2-3 weeks**
Status: **Published**

Standards

MA.K-12.1	Make sense of problems and persevere in solving them.
MA.K-12.4	Model with mathematics.
MA.K-12.6	Attend to precision.
MA.F-LE.A.4	Understand the inverse relationship between exponents and logarithms. For exponential models, express as a logarithm the solution to □□ to the □□ power = □ where □, □, and □ are numbers and the base □ is 2, 10, or □; evaluate the logarithm using technology.

Enduring Understandings

1. Mathematics is a language consisting of symbols and rules.
2. The same mathematical ideas can be represented concretely or symbolically.
3. There can be different strategies to solve a problem, but some are more effective and efficient than others.

Essential Questions

How will the student solve log equations?
How will the student use the Change of Base Formula?
How will the student get a log equation into calculator ready form?
How will the student solve Log word problems?
How will the student solve Exponential Growth and Decay problems?
How will the student solve Compound Interest problems?

Knowledge and Skills

Solve Log equations

Use Change of Base formula

Understand and Use TI-83 calculator

Understand and Use Calculator ready form

Solve compound interest, exponential growth, and decay problems

Resources

1. McDougal/Littell - Algebra & Trigonometry Structure & Method Book 2

2. Aufmann/Barker/Lockwood - Intermediate Algebra with Applications Sixth Edition

3. Houghton/Mifflin/Harcourt - On Core Mathematics Algebra 2

4. Holt - Algebra 2 with Trigonometry

5. Larson/Boswell - Big Ideas Math: Algebra 2 Texas Edition

6. Khan Academy

7. PurpleMath

8. KutaSoftware

9. CK-12

10. Quizlet

11. Albert I/O

12. Desmos

13. Problem Attic