01 Topic: Equations & Inequalities

Content Area: **Mathematics**
Course(s): **Algebra 2**
Time Period: **Semester 1**
Length: **2-3 weeks**
Status: **Published**

Standards

MA.K-12.2	Reason abstractly and quantitatively.
MA.K-12.4	Model with mathematics.
MA.K-12.7	Look for and make use of structure.
MA.A-REI.A.1	Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.
MA.A-REI.B.3	Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

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 do students solve different types of algebraic equations and inequalities?

How do students solve equations with absolute values?

How do students solve age, consecutive integer and perimeter word problems?

Knowledge and Skills

Solve Simple Equations

Solve Simple Inequalities

Solve Absolute Value Equations

Solve Compound Inequalities

Solve Absolute Value Inequalities

Solve Literal Equations

Solve Application Problems

Transfer Goals

Recognize and solve practical or theoretical problems involving mathematics, including those for which the solution approach is not obvious, by using mathematical reasoning and strategic thinking.

In this unit students will be able to identify what terminology/concepts are needed to solve problems after applying the proper implementation of these methods.

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