# 8 Math Unit 01: Equations

Content Area: **Mathematics**
Course(s):
Time Period: **Marking Period 1**
Length: **13 days**
Status: **Published**

## Unit Overview

In this chapter, students will build upon prior skills with equation solving while integrating a review of operations with rational numbers.

## Standards

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|---|---|
| 8.EE.C.7 | Solve linear equations in one variable. |
| 8.EE.C.7.a | Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where $a$ and $b$ are different numbers). |
| 8.EE.C.7.b | Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms. |

## Materials

**Big Ideas Math**

- 1.1 Solving Simple Equations
- 1.2 Solving Multi-Step Equations
- 1.3 Solving Equations with Variables on Both Sides
- 1.4 Rewriting Equations and Formulas

**Desmos**

Unit 4a Linear Equations

- ST Math
- Delta Math
- 3 Act Lessons
- Brainingcamp  Manipulatives
- Nearpod Lessons
- Brainpop Resources
- Online Resources

## Technology

| | |
|---|---|
| 8.1.8.DA.1 | Organize and transform data collected using computational tools to make it usable for a specific purpose. |
| 8.1.8.AP.6 | Refine a solution that meets users' needs by incorporating feedback from team members and users. |

## Assessment

**Formative Assessment**

- Teacher Observation
- Daily Quick Check
- Quizzes
- Exit Tickets

**Summative Assessment**

- Topic Tests
- Benchmark Tests
- Alternative Assessments: Performance Tasks & Projects
- NWEA Grade 8 Math Assessment

## Accommodations & Modifications

**Special Education**

- Follow IEP Plan which may contain some of the following examples…
- In class/pull out support with special ed teacher
- Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Limit number of questions
- Scribe
- Manipulatives
- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
- Another look homework video

- Practice buddy

**504**

- In class/pull out support with special ed teacher Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks Graphic organizers
- Vocabulary support Mnemonic devices
- Songs/videos to reinforce concepts Limit number of questions
- Scribe Manipulatives Calculators Reteach pages Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System Another look homework video
- Practice buddy

**ELL**

- Translation device/dictionary
- In class/pull out support with ESL teacher
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives
- Math Diagnosis & Intervention System

**At-risk of Failure**

- Additional time during intervention time
- Questions read aloud
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Manipulatives
- Calculators
- Reteach pages
- Leveled homework
- Lesson intervention activities
- Math Diagnosis & Intervention System
- Another look homework video
- Practice buddy

**Gifted & Talented**

- Independent projects
- Enrichment pages
- Online games
- Leveled Homework

- Extension Activities
- Today's Challenge

## Career Readiness, Life Literacies & Key Skills

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|---|---|
| 9.4.8.CI.2 | Repurpose an existing resource in an innovative way (e.g., 8.2.8.NT.3). |
| 9.2.8.CAP.2 | Develop a plan that includes information about career areas of interest. |
| 9.4.8.CT.2 | Develop multiple solutions to a problem and evaluate short- and long-term effects to determine the most plausible option (e.g., MS-ETS1-4, 6.1.8.CivicsDP.1). |
| 9.1.8.CP.1 | Compare prices for the same goods or services. |
| 9.1.8.EG.1 | Explain how taxes affect disposable income and the difference between net and gross income. |
| 9.1.8.FI.4 | Analyze the interest rates and fees associated with financial products. |
| 9.4.8.IML.9 | Distinguish between ethical and unethical uses of information and media (e.g., 1.5.8.CR3b, 8.2.8.EC.2). |
| 9.4.8.TL.1 | Construct a spreadsheet in order to analyze multiple data sets, identify relationships, and facilitate data-based decision-making. |
| 9.4.8.TL.2 | Gather data and digitally represent information to communicate a real-world problem (e.g., MS-ESS3-4, 6.1.8.EconET.1, 6.1.8.CivicsPR.4). |
| 9.4.8.TL.3 | Select appropriate tools to organize and present information digitally. |
| 9.4.8.TL.4 | Synthesize and publish information about a local or global issue or event (e.g., MSLS4-5, 6.1.8.CivicsPI.3). |

## Interdisciplinary Connections

Topic 1 STEM Project - Going, Going, Gone

In this project, students will represent the depletion rate of a natural resource in a table and a graph. They will explore other natural resources and describe their uses, depletion rates, and impact on the environment. Students will write a story focused on the sustainability of a natural resource.

Science Connection -

Students gather data about the depletion of natural resources, including the use of natural resources to make synthetic materials. They explore the impacts, positive and negative, that the use of these resources has on Earth's systems and on society.

ELA: NJSLSA.R1. Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
Science: MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people

and the natural environment that may limit possible solutions.

## Career Ready Practices

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP12. Work productively in teams while using cultural global competence.