CHAPTER 01– SOLVING LINEAR EQUATIONS

Chapter 01

Life is a math equation. In order to gain the most, you have to know how to convert the negatives into positives.

STUDENTS WILL BE ABLE TO...

- Solve multi-step linear equations and use them to solve real-life problems.
- Use unit analysis to model real-life problems.
- Solve linear equations with a variable on one side or both sides, and identify equations with no solution or infinitely many solutions.
- Solve absolute value equations involving one or two absolute values, and identify equations with extraneous solutions.
- Rewrite and use literal equations and common formulas.

Parents as Partners

Below is a link to a parent letter explaining more about this Chapter.

Chapter 01 Summary

Big Ideas Math® Game Closet

Games to Play At Home

Below are links to games to play at home to review skills covers in the Chapter.

Equations Tic-Tac-Toe
Let’s Race
A Trick for You
Pick your Polygon
Equations Relay

Everything Purple, Bold, and Underlined is a link to a resource for students and/or Parents/Guardians.
CHAPTER 01- SOLVING LINEAR EQUATIONS

TSD Competencies

TSD High School Graduation Competency #2
The student reasons, describes and analyzes quantitatively using units and number systems to make sense of and solve problems.

  Performance Indicator B
  The student reasons quantitatively and uses units to solve problems.

TSD High School Graduation Competency #3
The student creates, interprets, uses, and analyzes patterns of algebraic structures to make sense of problems.

  Performance Indicator C
  The student creates equations that describe numbers or relationships.
  Performance Indicator D
  The student understands, represents and solves equations and inequalities in one variable both algebraically and graphically.

Standards

CCSS.MATH.CONTENT.HSN.Q.A.1
Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.

CCSS.MATH.CONTENT.HSA.CED.A.1
Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.

CCSS.MATH.CONTENT.HSA.CED.A.4
Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm’s law V = IR to highlight resistance R.

CCSS.MATH.CONTENT.HSA.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.

CCSS.MATH.CONTENT.HSA.REI.B.3
Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

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## Chapter 01- Solving Linear Equations

### Calendar- Teacher’s Pace

The following calendar lays out the “Teacher’s Pace” of the class. It is posted in the classroom and students will track their personal progression through the unit. Reality constantly changes the plans so please touch base with your child regularly (ask them to snap a pace photo) to show you where they are on the progression compared to the teacher’s pace.

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
<th>Day 4</th>
</tr>
</thead>
</table>
| Chapter Opener  
   — STEAM Video  
   — Mathematical Proficiency  
   Mathematical Practice | 1.1 Solving Simple Equations  
   - Integer Timed Test  
   - M.A.T.H Rotations in Groups | 1.2 Solving Multi-Step Equations  
   - Integer Timed Test  
   - M.A.T.H Rotations in Groups | 1.3 Solving Equations with Variables on Both Sides  
   - Integer Timed Test  
   - M.A.T.H Rotations in Groups |

Homework: Chapter 1 Notes (posted on Google Classroom and linked on next page)

<table>
<thead>
<tr>
<th>Day 5</th>
<th>Day 6</th>
<th>Day 7</th>
<th>Day 8</th>
</tr>
</thead>
</table>
| 1.3 Solving Equations with Variables on Both Sides  
   - Integer Timed Test  
   - Scavenger Hunt  
   - Practice Questions | Mid Chapter Quiz | 1.4 Solving Absolute Value Equations  
   - Integer Timed Test  
   - Direct Instruction Lesson | 1.4 Solving Absolute Value Equations  
   - Integer Timed Test  
   - Connect 4 Game  
   - Practice Questions |

Homework: Chapter 1 Notes  
(DUE TOMORROW for Quiz)  
What did you learn and Quiz in Textbook  
Answer Key

Homework: Artifacts for the 4 (linked Below) and Chapter 2 Notes (posted on Google Classroom)

<table>
<thead>
<tr>
<th>Day 9</th>
<th>Day 10</th>
<th>Day 11</th>
<th>Day 12</th>
</tr>
</thead>
</table>
| 1.5 Rewriting Equations and Formulas  
   - Integer Timed Test  
   - M.A.T.H Rotations in Groups | 1.5 Rewriting Equations and Formulas  
   - Integer Timed Test  
   - M.A.T.H Rotations in Groups | End of Chapter Quiz | Chapter 01 Test |

Homework: Artifacts for the 4 (linked Below) and Chapter 2 Notes (posted on Google Classroom)  
Bring Chapter 1 Notes Tomorrow

Homework: Artifacts for the 4 (linked Below)  
Due Tomorrow  
Bring Chapter 1 Notes for Test

**Tasks to Achieve the 4**: Students who wish to go for the four need to select and complete three of the following tasks and submit an artifact submission form in class to set up an artifact meeting with Mrs. Barnes.

- Magic of Mathematics
- Performance Task
- Alternative Assessment
- Tow O War

**Music Video**— See Mrs. Barnes for Details

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Life is a math equation. In order to gain the most, you have to know how to convert the negatives into positives.

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[Click Here for this Chapter's Summary](#)

Knowing the vocabulary words can make learning the math easier. Flash cards at home are a great way to review key vocabulary.

[Click Here for this Chapter's Vocabulary Flash Cards](#)

## Section Notes and Videos

**Topics Covered on Quiz 1: Solving Simple Equations, Solving Multi-Step Equations, Solving Equations with Variables on Both Sides.**

<table>
<thead>
<tr>
<th>1.1 Solving Simple Equations</th>
<th>Example 1 Video 1, Video 2</th>
<th>Example 2 Video 1, Video 2</th>
<th>Example 3 Video 1, Video 2</th>
<th>Example 4 Video 1, Video 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Page 1, Page 2</td>
<td>Monitoring Progress 1</td>
<td>Monitoring Progress 2</td>
<td>Monitoring Progress 3</td>
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<td></td>
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<td>Monitoring Progress 7</td>
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<tr>
<th>1.2 Solving Multi-Step Equations</th>
<th>Example 5 Video 1, Video 2</th>
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<th>Example 3 Video 1, Video 2</th>
<th>Example 4 Video 1, Video 2</th>
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<tr>
<td>Page 1, Page 2</td>
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Section Notes and Videos

Topics Covered on Quiz 2: Solving Absolute Value Equations, Rewriting Equations and Formulas.

1.4 Solving Absolute Value Equations

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1.5 Rewriting Equations and Formulas

Write your Own

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