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### How to Use This Addendum

Make sure you're ready to teach by noting the **Necessary Materials and Pre-Lesson Prep** you will need to gather or complete prior to the lesson

Find high-leverage instructional moves in the **Lesson Look Fors**. This is what leaders should see when observing your instruction

Note how your lesson objective ties to your state **Standards**

Plan purposeful questioning and responses using **Opportunities to CFU**

Use the **Mathematical Goal of the Lesson** to keep you focused on the appropriate student outcome

Plan to stress **Important Vocabulary** in the lesson. New vocab for the unit is indicated in bold

Plan instruction around what students need to Know & Do to be successful on the Exit Ticket using the identified **Student Criteria for Success**

Note exemplar pacing in the **Lesson Agenda**

Find recommended lesson modifications, content knowledge boosters, and/or high-leverage instructional moves that may not be in your Teacher Edition located in **Other Notes to Inform Your Planning**

Lesson 9: Find related multiplication facts by adding and subtracting equal groups in array models		Date: _____														
<p><b>Standard(s)</b></p> <p><b>3.4K</b> solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects, pictorial models, area models, and equal groups; properties of operations; or recall of facts</p>	<p><b>Notes for Intellectual Preparation &amp; Lesson Planning</b></p> <p><b>Necessary Materials and Pre-Lesson Prep</b></p> <ul style="list-style-type: none"> <li>• (S) Multiply by 2 (1–5) Pattern Sheet</li> <li>• (S) Threes array no fill template</li> <li>• (S) Personal white board</li> <li>• (S) Blank paper</li> </ul> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Lesson Agenda</th> <th style="text-align: left;">Time</th> </tr> </thead> <tbody> <tr> <td>I. Do Now (source: fluency #1)</td> <td>5 min</td> </tr> <tr> <td>II. Fluency*</td> <td>8 min</td> </tr> <tr> <td>III. Concept Development</td> <td>25 min</td> </tr> <tr> <td>IV. Student Practice</td> <td>15 min</td> </tr> <tr> <td>V. Student Debrief</td> <td>7 min</td> </tr> <tr> <td>VI. Exit Ticket*</td> <td>5 min</td> </tr> </tbody> </table> <p><b>Mathematical Goal of this Lesson</b></p> <p>Students learn they can use decomposition to break one larger number into two smaller numbers as a strategy for multiplication. The goal of this lesson is simply for student to understand how to interpret and create an array that demonstrates such decomposition. Students will build on this understanding in subsequent lessons. This lesson also supports the goal of student thinking in terms of counting units, an overarching goal for academy math.</p> <p><b>Opportunities to CFU</b></p> <ul style="list-style-type: none"> <li>✓ Concept Development, by way of eliciting student responses</li> <li>✓ Problems Set problems: #2, #3</li> </ul> <p style="text-align: right; margin-right: 20px;"> <math>7 \text{ threes} = 5 \text{ threes} + 2 \text{ threes}</math>  <math>7 \times 3 = 5 \times 3 + 2 \times 3</math>  <math>21 = 15 + 6</math> </p> <p><b>Other Notes to Inform Your Planning</b></p> <p><b>For Do Now:</b> Use the Multiply by 2 (1–5) Pattern Sheet for your Do Now. 3 minutes for completion, 2 minutes whole group classwork check.</p> <p><b>For Fluency:</b> Complete the Group Counting activity (notice the inclusion of 4s in preparation for upcoming lessons) and Forms of Multiplication activity.</p> <p><b>For Concept Development:</b> Consider prepping personal whiteboard in advance. Spend no more than 12 minutes for CD Problem 1 and 13 minutes for CD Prob 2.</p> <p><b>For Student Practice:</b> consider creating an extra set of Qs like 1-3 in case students struggle with entry-level understanding. If they don't, move on to Qs 4 and above.</p> <p><b>For Student Debrief:</b> consider using the Eureka assigned Exit Ticket for whole group debrief exercise; Suggested strategy – guided discourse.</p> <p><b>For Exit Ticket:</b> Use Homework problems 2 &amp; 3 for this lesson's Exit Ticket.</p> <p><small>Though not formally discussed yet, this is a foundation to understanding of distributive property. Students visually see multiplying the sum of two or more addends by a number will give the same result as multiplying each addend individually by the number and then adding the products together.</small></p>	Lesson Agenda	Time	I. Do Now (source: fluency #1)	5 min	II. Fluency*	8 min	III. Concept Development	25 min	IV. Student Practice	15 min	V. Student Debrief	7 min	VI. Exit Ticket*	5 min	<p><b>Lesson Look Fors</b></p> <p><b>Look for teachers to...</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Have established a signalling routine for choral response or work show during the respective fluency activities</li> <li><input type="checkbox"/> Use a think aloud to describe why they shade what portions of the array, or use a different symbol in the array</li> <li><input type="checkbox"/> Make the focus of the lesson understanding the visual representations</li> </ul> <p><b>Look for students to...</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Explain what they see in the array and how it relates to a given number sentence.</li> </ul> <p><b>Student Criteria for Success</b></p> <ul style="list-style-type: none"> <li>Shading, brackets, and/or dotted lines on an array will have mathematical significance</li> <li>-brackets can identify parts or wholes</li> <li>-dotted lines and shading represent decompositions</li> <li>We count units: In an array, counting rows is the same as counting units.</li> <li>Addition/subtraction and multiplication math facts (up to 4)</li> <li>Interpret an array</li> <li>-identify decompositions within an array</li> <li>-Relate an annotated or labeled array to one or more number sentences</li> <li>Addition/subtraction (+/- up to 4)</li> <li>Multiplication (2, 3, and 4)</li> </ul>
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VI. Exit Ticket*	5 min															
<p><b>Important Vocabulary</b></p> <ul style="list-style-type: none"> <li>• array</li> <li>• <b>bracket</b></li> <li>• columns</li> <li>• rows</li> <li>• unit(s)</li> </ul> <p><small>In this lesson, students are NOT responsible for the vocabulary distributive property. Please withhold as it will come up in later lessons.</small></p>																

## UNIT SYNOPSIS

In this unit, students expand on what they learned about modeling, writing, and solving two-step equations in Pre-Algebra to include multi-step equations and literal equations. Students will continue to solidify the understanding that in order to solve for a variable, they must isolate the variable on one side of the equation sign. To keep the equation true, they must keep the equation balanced by doing the same thing to both sides of the equation. Near the end of the unit, students will learn how to manipulate literal equations, an essential skill for success in future units and courses.

## CONTENT STANDARDS

Below are the standards addressed in this unit.

Readiness Standards	Supporting Standards
<p><b>A.5(A)</b> solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides.</p> <p><b>7.11(A)</b> model and solve one-variable, two-step equations and inequalities*</p> <p><b>6.7(A)</b> generate equivalent numerical expressions using order of operations, including whole number exponents, and prime factorization*</p>	<p><b>A.12(E)</b> solve mathematic and scientific formulas, and other literal equations, for a specified variable.</p>

\*Note that 7.11(A) and 6.7(A) are from 7<sup>th</sup> and 6<sup>th</sup> grade, respectively. They are included at the beginning of this unit to briefly review what students already learned about simplifying expressions and solving equations, as these concepts are foundational to solving more complicated equations.

<p><b>Focus on Disciplinary Literacy</b></p> 	<p>Mathematical Process Standard <b>(F)</b> – analyze mathematical relationships to connect and communicate mathematical ideas</p>
	<p>Mathematical Process Standard <b>(G)</b> – display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication</p>

## LEARNING SUPPORTS BY LESSON

There is a checkmark for the math support if the lesson	Lessons →	L1	L2	L3	L4	L5	L6	L7	L8
	Math Supports								
makes a connection to prior content or from a previous unit or academic year	Access Prior Knowledge		✓	✓	✓	✓	✓	✓	✓
uses familiar contexts or experiences to make the learning relevant to students	Real-World Connections	✓	✓						✓
makes use of graphic organizers	Graphic Organizers				✓				
includes tools like rulers, protractors, patty paper, algebra tiles, etc.	Tools or Manipulatives		✓	✓					
incorporates tables, reference charts, displays, pictures, models, or color-coding	Visual Aids	✓				✓			
includes definitions, examples vs. nonexamples, cognates, etc.	Vocabulary Supports		✓		✓	✓	✓		
includes strategies that support language development	Language Supports	✓	✓	✓	✓	✓	✓		✓
asks students to discuss with their partner to prepare for whole class discussion	- Turn and Talk	✓	✓	✓	✓	✓	✓		✓
teacher facilitates a whole class discussion to debrief key learnings	- Guided Discussion	✓	✓	✓	✓	✓	✓		✓
asks students to think independently, test their idea with a partner, and share whole group	- Think, Pair, Share								
includes sentence stems to support students with explanations	- Sentence Stems								
provides opportunities for students to work with a partner or a group	Peer Collaboration	✓	✓	✓	✓	✓	✓	✓	✓
uses mnemonics such as SohCahToa	Mnemonics								
includes websites or equipment that enhances the lesson	Technological Support	✓							
content can be presented in different forms	Different Modalities								
uses hands-on tools or manipulatives to represent the math	- Concrete		✓	✓					
uses drawings to represent the math	- Pictorial		✓	✓	✓				
uses numbers and number sentences to represent the math	- Abstract	✓	✓	✓	✓	✓	✓	✓	✓

# The EFFL Model

## Experience First, Formalize Later (EFFL) Model

### Opening

For every new lesson, the teacher begins by making the goals of the lesson crystal clear. The teacher does more than simply read the objective to the class. They make connections to previous learning, share how this learning fits into a bigger picture, or explain why this learning is important for future learning.

### Activity / Interaction With New Material (INM)

For this part of the lesson, students work in pairs or groups of four to experience new content through an activity. Students might be discussing a proposed scenario, working with other groups, or doing a simulation. The student activity is designed for students to be able to do without the help of the teacher. Of course, the teacher is watching and listening in to conversations in order to formatively assess student understanding. The teacher provides questions, cues, and prompts (not answers!) to help push groups forward when they are stuck or have made a mistake. As students begin to finish the activity, the teacher identifies students to write their work on the board. Most often, the teacher selects student work that will easily allow them to connect the experience to formal learning. Students write their work on the whiteboard in a single-color marker.

### Debrief Activity

Once students have recorded their responses in their workbook (see blue writing to the right), the teacher calls the whole group back together for a debrief. It is in this discussion that the teacher will help students formalize the learning. The teacher connects the student activity experience to new vocabulary, definitions, formulas, and algorithms. The formal learning is attached specifically to the experiences of the activity so that students can enhance their constructed understanding of the new content. The teacher writes all of the formal learning in a different color in the margins of the activity (see red writing to the right). The students add these ideas in the margins on their activity page and often think of this as the formal “notes” of the lesson. In all of the answer keys we provide on Math Medic, the teacher formal learning points are provided in the margins in a different color.

### QuickNotes

In this part of the lesson, the teacher uses the whole experience of the activity and the formalization in the debrief to summarize the learning from the lesson. Notice that we use the box to constrain the amount of formal “notes” that the teacher can provide.

### Student Practice

Now that students have arrived at some new learning, they need to be able to apply it in new contexts. Most often we have students complete these questions in pairs and occasionally we select one question to use as an exit ticket. If we have time, we have students write solutions on the whiteboard.

### Extra Practice

We typically give students around 3-5 “Extra Practice” problems for each lesson. We choose problems that are closely aligned with the Learning Objectives of the lesson. It is our belief that “less is more” here. We would rather students spend their Extra Practice time thinking deeply about just a few problems, rather than surface level thinking on many problems. When possible, we provide the answers at the bottom of the page, so they can immediately assess their understanding.

Slightly modified version of: <https://www.calc-medic.com/post/experience-first-formalize-later#:~:text=%E2%80%9CExperience%20First%2C%20Formalize%20Later%E2%80%9D,at%20formal%20definitions%20and%20formulas.>

## Before You EFFL!

Here are helpful resources that you guide you in the right direction before your first EFFL lesson!

### Why Should We EFFL?

The article advocates for the Experience First, Formalize Later (EFFL) teaching model, emphasizing its effectiveness in fostering deep understanding and flexible thinking in students. The author compares traditional teaching to a game of "Simon Says," where students merely mimic instructions without grasping underlying concepts. In contrast, EFFL encourages students to engage actively with problems, enhancing their ability to understand and apply calculus concepts creatively.

### Tips for Lesson Planning

The article offers practical advice for effective lesson planning beyond the exhaustive and overly detailed approaches often emphasized during teacher training. It underscores the importance of thoughtful preparation but rejects the notion that teachers need to script every minute or detail of a class session.

### Making the Most of Your EFFL Lesson Debrief

The article discusses the significance of the debriefing phase in the Experience First, Formalize Later (EFFL) lesson model, emphasizing its role in reinforcing learning and highlighting student contributions. The debrief session is seen as crucial for integrating academic vocabulary, emphasizing key lesson understandings, and valuing students' mathematical insights.

## While You EFFL!

While each lesson may be unique in context and skills, all lessons benefit from the following practices:

### Teacher Look Fors:

- Utilizing the Do Now to spark students' interest in the Activity.
- Use questioning to promote small group discussion and exploration, guided by monitoring questions.
- Connects Experience First to formal concepts using a **colored pencil/pen** to take notes along the margin during the Debrief.
- Facilitates whole-class discussions for students to reflect, share insights, and provides feedback that reinforces key concepts.
- Tracks time to adapt lesson pacing and support based on student response and engagement.

### Students Look Fors:

- In the Activity, students engage in group work and discourse.
- Exploring the activity, testing hypotheses and approaches (trial & error).
- Take notes on key ideas and concepts using different **colored pencil/pen** to take notes along the margin.
- Share thoughts and ideas that demonstrate their approach to their work.

### Other considerations

- During the **Experience First** phase, if most of your students seem stuck or disengaged, take a moment to pause, reset, and provide clear instructions. Some problems of the Activity are more suitable to do a whole-class discussion as a means to save some instructional time for Student Practice or the Exit Ticket. You are encouraged to adapt the EFFL (Experience First, Formalize Later) process to meet your students' needs while maintaining a focus on student-centered instruction.

# ROADMAP

AT A GLANCE: Unit 1 – Solving Equations			
Day	Date	Lesson	Lesson Title
<p>There are 3 flexible Success Days that you can use anywhere in the unit.</p> <ul style="list-style-type: none"> <li>• Consider using 1 day between Lessons 4 and 5 to give Topic Quiz 1</li> <li>• Consider using 1 day to review before the Unit 1 Exam.</li> <li>• If you don't need to use all 3 success days, you can/should save unused days for later.</li> </ul>			
1		1	Order of Operations
2		2	Solving One- and Two-Step Equations
3		3	Combining Like Terms to Solve Equations
4		4	Solving Equations Including the Distributive Property
5			Success Day (Ideal time to administer <b>optional Unit 1 Topic Quiz</b> )
6		5	Solving Equations With Special Solutions
7		6	Manipulating Linear Equations (Day 1)
8		7	Manipulating Linear Equations (Day 2)
9		8	Applications of Solving Equations
10			Success Day
11			Success Day
12			<b>Unit 1 Exam</b>



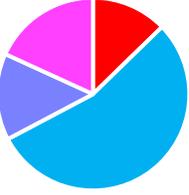
Lesson 2: Solving One- and Two-Step Equations		Date: _____										
Standard(s)	Notes for Intellectual Preparation & Lesson Planning	Lesson Look Fors										
<p>◆ <b>6.10(A)</b> model and solve one-variable, one-step equations and inequalities that represent problems</p> <p>◆ <b>7.11(A)</b> model and solve one-variable, two-step equations and inequalities</p> <p><i>(as a prerequisite for)</i></p> <p>◆ <b>A.5(A)</b> solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides.</p>	<p><b>Necessary Materials and Pre-Lesson Prep</b></p> <ul style="list-style-type: none"> <li>Unit 1 Student Workbook</li> <li>Class set of red pens</li> </ul> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><b>Lesson Structure:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; background-color: red; border: 1px solid black;"></td> <td>Do Now (7 min)</td> </tr> <tr> <td style="width: 20px; background-color: cyan; border: 1px solid black;"></td> <td>INM (15 min)</td> </tr> <tr> <td style="width: 20px; background-color: limegreen; border: 1px solid black;"></td> <td>Debrief (8 min)</td> </tr> <tr> <td style="width: 20px; background-color: blue; border: 1px solid black;"></td> <td>Student Practice (15 min)</td> </tr> <tr> <td style="width: 20px; background-color: magenta; border: 1px solid black;"></td> <td>Exit Ticket (10 min)</td> </tr> </table>  </div> <p><b>Mathematical Goal of this Lesson</b> By the end of this lesson, students should be able to solve one- and two-step equations. This is something most students learned how to do in 6<sup>th</sup> and 7<sup>th</sup> grades, but it is a prerequisite for solving more complex equations in this course. In Lesson 3, students will build on this lesson to solve equations with variables on both sides and combine like terms. In Lesson 4, students will build on Lessons 2 and 3 to solve equations that also involve the distributive property.</p> <p><b>Opportunities to CFU</b></p> <ul style="list-style-type: none"> <li>✓ INM: 3, 4c</li> <li>✓ Student Practice: 1, 4, 7, 13, 16</li> </ul> <p><b>Other Notes to Inform Your Planning</b> For <b>Do Now</b>: Most students have used the pan balance model to solve one- and two-step equations in 6<sup>th</sup> and 7<sup>th</sup> grades. This Do Now serves to activate students' prior knowledge of modeling one-step equations before we go into two-step equations in INM #4.</p> <p>For <b>INM</b>: To watch a brief video explanation of INM#4, click here.</p> <p>For <b>Student Practice</b>: Each part increases in difficulty. Part I includes only one-step equations, something students learned how to do in 6<sup>th</sup> grade. Part II includes two-step equations that contain only whole numbers (and no operations with negative numbers). Part III includes rational numbers, and students learned how to solve equations like these in 7<sup>th</sup> grade.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px; text-align: center;"> <p><b>Focus on Disciplinary Literacy</b></p>  <p>Debrief</p> </div>		Do Now (7 min)		INM (15 min)		Debrief (8 min)		Student Practice (15 min)		Exit Ticket (10 min)	<p><b>Look for teachers to...</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> facilitate a turn and talk at the beginning of the INM so students can share their thinking from the Do Now.</li> <li><input type="checkbox"/> during INM#2, stamp that we do the same thing to both sides to keep the scale balanced.</li> <li><input type="checkbox"/> during INM#3, stamp that we use inverse operations to isolate the variable.</li> <li><input type="checkbox"/> promote the use of the calculator to verify solutions (with the added bonus of giving students more exposure to the calculator).</li> </ul> <p><b>Look for students to...</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> apply inverse operations to solve equations</li> <li><input type="checkbox"/> connect the pan balance model to why we +/- before <math>\times/\div</math></li> <li><input type="checkbox"/> use their calculators to check their work and start to become familiar with how to use their calculator.</li> </ul>
	Do Now (7 min)											
	INM (15 min)											
	Debrief (8 min)											
	Student Practice (15 min)											
	Exit Ticket (10 min)											
<p><b>Important Vocabulary</b></p> <ul style="list-style-type: none"> <li>equation</li> <li>inverse operation</li> <li>isolate</li> <li>variable</li> </ul>		<p><b>Student Know/Do Chart</b></p> <ul style="list-style-type: none"> <li> Students can solve one- and two-step equations.</li> <li> Students can use the calculator to verify their solutions.</li> <li> To solve a one-step equation, apply the inverse operation to isolate the variable.</li> <li> To solve a multi-step equation, take care of + and - first. Then, take care of <math>\times</math> and <math>\div</math>.</li> </ul>										

Lesson 3: Combining Like Terms to Solve Equations		Date: _____
Standard(s)	Notes for Intellectual Preparation & Lesson Planning	Lesson Look Fors
<p>◆ <b>A.5(A)</b> solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides.</p>	<p><b>Necessary Materials and Pre-Lesson Prep</b></p> <ul style="list-style-type: none"> <li>Unit 1 Student Workbook</li> <li>Class set of red pens</li> </ul>	<p><u>Look for teachers to...</u></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> stamp that we combine like terms before balancing an equation because it is more efficient.</li> <li><input type="checkbox"/> stamp that terms must have the same variable and exponent to be combined, and be on the lookout for the common misconception that any terms can be combined (e.g. some students see an expression like <math>4x + 3 + 2x</math> and say it's <math>9x</math>)</li> <li><input type="checkbox"/> model the use of colors or highlighters to identify like terms.</li> </ul> <p><u>Look for students to...</u></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> combine like terms before balancing an equation.</li> <li><input type="checkbox"/> be able to explain which terms can and cannot be combined and why.</li> </ul>
	<p><b>Lesson Structure:</b></p> <ul style="list-style-type: none"> <li> Do Now (7 min)</li> <li> INM (16 min)</li> <li> Debrief (9 min)</li> <li> Student Practice (13 min)</li> <li> Exit Ticket (10 min)</li> </ul>  <p><b>Mathematical Goal of this Lesson</b> By the end of this lesson, students should be able to solve one-variable equations with variables on both sides of the equal sign. This includes combining like terms, and it builds on the previous lesson on solving one- and two-step equations. In the following lesson, students will solve equations including the distributive property, which builds upon this lesson.</p> <p><b>Opportunities to CFU</b></p> <ul style="list-style-type: none"> <li>✓ INM: 3, 5</li> <li>✓ Student Practice: 1, 2, 7, 8</li> </ul> <p><b>Other Notes to Inform Your Planning</b></p> <p>For <b>Do Now</b>: The Do Now reviews what students learned about zero pairs in 6<sup>th</sup> and 7<sup>th</sup> grade. This is a very visual way to combine like terms, which students have actually been doing for years!</p> <p>For <b>INM #2</b>: To watch a brief video of one way to model INM#2, click here. There will be different ways students may use the pan balance to get to the right solution.</p> <p>For <b>INM #5</b>: use colored pencils or highlighters to model identifying like terms. In the TE, you can see an example of this in INM 5a/5b and SP #s 1-6.</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p><b>Focus on Disciplinary Literacy</b></p>  <p>Debrief</p> </div>	
<p><b>Important Vocabulary</b></p> <ul style="list-style-type: none"> <li>like terms</li> <li>combine like terms</li> </ul>		<p><b>Student Know/Do Chart</b></p> <ul style="list-style-type: none"> <li> Students can solve multi-step equations that involve variables on both sides of the equation.</li> <li> Students can combine like terms.</li> <li> Like terms are terms that have the same variable and exponent, like <math>4x</math> and <math>-2x</math>.</li> <li> Numbers without variables are automatically like terms, like 5 and 9.</li> </ul>

Lesson 4: Solving Equations Including the Distributive Property		Date: _____										
Standard(s)	Notes for Intellectual Preparation & Lesson Planning	Lesson Look Fors										
<p>◆ <b>A.5(A)</b> solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides.</p>	<p><b>Necessary Materials and Pre-Lesson Prep</b></p> <ul style="list-style-type: none"> <li>Unit 1 Student Workbook</li> <li>Class set of red pens</li> </ul> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><b>Lesson Structure:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;"><span style="color: red;">■</span></td> <td>Do Now (7 min)</td> </tr> <tr> <td style="text-align: center;"><span style="color: blue;">■</span></td> <td>INM (18 min)</td> </tr> <tr> <td style="text-align: center;"><span style="color: green;">■</span></td> <td>Debrief (5 min)</td> </tr> <tr> <td style="text-align: center;"><span style="color: purple;">■</span></td> <td>Student Practice (15 min)</td> </tr> <tr> <td style="text-align: center;"><span style="color: pink;">■</span></td> <td>Exit Ticket (10 min)</td> </tr> </table>  </div> <p><b>Mathematical Goal of this Lesson</b> By the end of this lesson, students should be able to solve one-variable equations that have variables on both sides of the equal sign AND require application of the distributive property. This lesson requires students to apply everything they've learned so far.</p> <p><b>Opportunities to CFU</b></p> <ul style="list-style-type: none"> <li>✓ INM: 3, 4</li> <li>✓ Student Practice: 1, 2, 3, 9, 10</li> </ul> <p><b>Other Notes to Inform Your Planning</b> For <b>Do Now</b>: The Do Now reviews what students learned about multiplication in 4<sup>th</sup> - 7<sup>th</sup> grade. This is a very visual way to multiply. We include it here because it helps make sense of the distributive property in the INM.</p>	<span style="color: red;">■</span>	Do Now (7 min)	<span style="color: blue;">■</span>	INM (18 min)	<span style="color: green;">■</span>	Debrief (5 min)	<span style="color: purple;">■</span>	Student Practice (15 min)	<span style="color: pink;">■</span>	Exit Ticket (10 min)	<p><b>Look for teachers to...</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> allow students to build their understanding of the need for the distributive property in #s 2-3 (in #3 Alicia's way won't work, but teachers should let students figure it out rather than just telling them)</li> <li><input type="checkbox"/> remind students what it means when there is no operation symbol between a number and parentheses (i.e. multiply).</li> <li><input type="checkbox"/> stamp the "invisible 1" that exists between a negative sign and parentheses [e.g. <math>-(4 - r)</math>]</li> </ul> <p><b>Look for students to...</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> solve multi-step equations that involve combining like terms and the Distributive Property.</li> <li><input type="checkbox"/> use their calculators to check their work and build familiarity with their calculator.</li> </ul>
	<span style="color: red;">■</span>	Do Now (7 min)										
<span style="color: blue;">■</span>	INM (18 min)											
<span style="color: green;">■</span>	Debrief (5 min)											
<span style="color: purple;">■</span>	Student Practice (15 min)											
<span style="color: pink;">■</span>	Exit Ticket (10 min)											
<p><b>Important Vocabulary</b></p> <ul style="list-style-type: none"> <li><b>Distributive Property</b></li> </ul>	<p>For <b>INM</b>: #2 exists to show that for numerical expressions, applying the distributive property gives the same result as using the order of operations. #3 exists to build a need for the distributive property when simplifying algebraic expressions. #4 connects the array method from the Do Now to reinforce the idea that in the distributive property, the factor outside the parentheses must be multiplied by EVERY term inside the parentheses.</p> <p>For <b>Student Practice</b>: As always, teachers should allow students to use their calculator to verify solutions. They should not use n-solve; rather, students should show their steps but use the calculator to prevent computational errors.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="background-color: yellow; text-align: center;"><b>Focus on Disciplinary Literacy</b></p> <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 10px;">Debrief</div> </div> </div>	<p><b>Student Know/Do Chart</b></p> <ul style="list-style-type: none"> <li> Students can solve multi-step equations that involve the distributive property.</li> <li> Students can combine like terms.</li> <li> To apply the Distributive Property, multiply the factor outside the parentheses by each term inside the parentheses.</li> </ul>										



Lesson 6: Manipulating Linear Equations (Day 1)		Date: _____										
Standard(s)	Notes for Intellectual Preparation & Lesson Planning	Lesson Look Fors										
<p>◆ <b>A.12(E)</b> manipulate literal equations to isolate a specified variable.</p>	<p><b>Necessary Materials and Pre-Lesson Prep</b></p> <ul style="list-style-type: none"> <li>Unit 1 Student Workbook</li> <li>Class set of red pens</li> <li>Station Cards</li> </ul> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><b>Lesson Structure:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; background-color: red; border: 1px solid black;"></td> <td>Do Now (7 min)</td> </tr> <tr> <td style="width: 20px; background-color: cyan; border: 1px solid black;"></td> <td>INM (15 min)</td> </tr> <tr> <td style="width: 20px; background-color: limegreen; border: 1px solid black;"></td> <td>Debrief (8 min)</td> </tr> <tr> <td style="width: 20px; background-color: blue; border: 1px solid black;"></td> <td>Student Practice (15 min)</td> </tr> <tr> <td style="width: 20px; background-color: magenta; border: 1px solid black;"></td> <td>Exit Ticket (10 min)</td> </tr> </table>  </div> <p><b>Mathematical Goal of this Lesson</b> By the end of this lesson, students should begin to build an understanding of manipulating literal equations. Two days are devoted to this skill, so it is okay if students do not fully master it on the first day.</p> <p><b>Opportunities to CFU</b> ✓ INM: 3c, 4a, 4b     ✓ Student Practice: 1, 3, 4, 7</p>		Do Now (7 min)		INM (15 min)		Debrief (8 min)		Student Practice (15 min)		Exit Ticket (10 min)	<p><b>Look for teachers to...</b></p> <ul style="list-style-type: none"> <li>throughout the INM, stamp that the steps students took to solve equations in previous lessons are the <b>SAME</b> steps they take to manipulate literal equations (see red margin notes in TE)</li> </ul> <p><b>Look for students to...</b></p> <ul style="list-style-type: none"> <li>be able to explain how they're manipulating an equation and why (e.g. "I am dividing both sides by <math>a</math> to isolate the <math>m</math> in <math>F = ma</math>).</li> </ul>
	Do Now (7 min)											
	INM (15 min)											
	Debrief (8 min)											
	Student Practice (15 min)											
	Exit Ticket (10 min)											
<p><b>Important Vocabulary</b></p> <ul style="list-style-type: none"> <li>literal equation</li> <li>manipulate</li> </ul>	<p><b>Other Notes to Inform Your Planning</b></p> <p>For <b>INM</b>: Students have manipulated one-step equations (like <math>A = lw</math>) since 6<sup>th</sup> grade, but they might have struggled or not realized it. In the INM we start with a 6<sup>th</sup> grade question to ease students into grade-level work, because seeing so many variables in one equation can be daunting.</p> <p>For <b>Student Practice #5</b>: Students have not yet worked with square roots in this course, so you'll notice that for the equation <math>V = \pi r^2</math>, students are asked to isolate <math>r^2</math> instead of <math>r</math>.</p> <p>For <b>Exit Ticket</b>: There is an exit ticket provided for Lesson 6 and Lesson 7 even though they are over the same topic. The second ET requires much more reading.</p>	<p><b>Student Know/Do Chart</b></p> <p><b>Do</b> Students can manipulate a multi-variable equation to isolate a variable.</p> <p><b>Know</b> The steps you take to isolate a variable are the same whether an equation has one or more variables.</p>										
	<p><b>Focus on Disciplinary Literacy</b></p> <div style="border: 1px solid black; padding: 5px; display: flex; align-items: center;">  <div style="margin-left: 10px;">Debrief</div> </div>											

Lesson 7: Manipulating Literal Equations (Day 2)		Date: _____						
Standard(s)	Notes for Intellectual Preparation & Lesson Planning	Lesson Look Fors						
<p>◆ <b>A.12(E)</b> manipulate literal equations to isolate a specified variable.</p>	<p><b>Necessary Materials and Pre-Lesson Prep</b></p> <ul style="list-style-type: none"> <li>Unit 1 Student Workbook</li> <li>Class set of red pens</li> </ul>	<p><u>Look for teachers to...</u></p> <ul style="list-style-type: none"> <li>set clear expectations for stations (what happens at each station, how long students get at each station) and hold students to them.</li> </ul> <p><u>Look for students to...</u></p> <ul style="list-style-type: none"> <li>be able to explain how they're manipulating an equation and why (e.g. "I am dividing both sides by <math>a</math> to isolate the <math>m</math> in <math>F = ma</math>).</li> <li>participate in the stations activity, meeting their teacher's clearly set expectations.</li> </ul>						
	<p><b>Lesson Structure:</b></p> <table border="1"> <tr> <td></td> <td>Do Now (7 min)</td> </tr> <tr> <td></td> <td>Stations (30 min)</td> </tr> <tr> <td></td> <td>Debrief (8 min)</td> </tr> <tr> <td></td> <td>Exit Ticket (10 min)</td> </tr> </table>  <p><b>Mathematical Goal of this Lesson</b> By the end of this lesson, students should be able to manipulate literal equations to isolate a requested variable. This is the second day of a two-day lesson.</p> <p><b>Opportunities to CFU</b> ✓ Stations: 2, 4, 6</p> <p><b>Other Notes to Inform Your Planning</b></p>			Do Now (7 min)		Stations (30 min)		Debrief (8 min)
	Do Now (7 min)							
	Stations (30 min)							
	Debrief (8 min)							
	Exit Ticket (10 min)							
<p><b>Important Vocabulary</b></p> <ul style="list-style-type: none"> <li>literal equation</li> <li>manipulate</li> </ul>	<p>For <b>INM</b>: There is no new material for students to engage with. Instead, students are practicing what they were introduced to in the previous lesson – manipulating literal equations.</p> <p>For <b>Student Practice</b>: This SP is not a worksheet, but STATIONS! You can find copies of the Station Cards in the TE immediately after the lesson. When internalizing, consider how you will set up the stations and what expectations you will set. (See the Qs on TE p54 for more things to think about.)</p>	<p><b>Student Know/Do Chart</b></p> <p> Students can manipulate a multi-variable equation to isolate a variable.</p> <p> The steps you take to isolate a variable are the same whether an equation has one or more variables.</p>						
<p><b>Focus on Disciplinary Literacy</b></p>  <p>Debrief</p>								

Lesson 8: Applications of Solving Equations		Date: _____										
Standard(s)	Notes for Intellectual Preparation & Lesson Planning	Lesson Look Fors										
<p>◆ <b>7.10(A)</b> write one-variable, two-step equations and inequalities to represent constraints or conditions within problems</p> <p>◆ <b>A.5(A)</b> solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides.</p> <p><i>(in preparation for)</i></p> <p>◆ <b>A.2(I)</b> write systems of two linear equations given a table of values, a graph, and a verbal description</p>	<p><b>Necessary Materials and Pre-Lesson Prep</b></p> <ul style="list-style-type: none"> <li>Unit 1 Student Workbook</li> <li>Class set of red pens</li> </ul> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p><b>Lesson Structure:</b></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;"><span style="color: red;">■</span></td> <td>Do Now (7 min)</td> </tr> <tr> <td style="text-align: center;"><span style="color: blue;">■</span></td> <td>INM (20 min)</td> </tr> <tr> <td style="text-align: center;"><span style="color: green;">■</span></td> <td>Debrief (3 min)</td> </tr> <tr> <td style="text-align: center;"><span style="color: purple;">■</span></td> <td>Student Practice (15 min)</td> </tr> <tr> <td style="text-align: center;"><span style="color: pink;">■</span></td> <td>Exit Ticket (10 min)</td> </tr> </table>  </div> <p><b>Mathematical Goal of this Lesson</b> By the end of this lesson, students should be able to set up and solve equations given verbal descriptions. Students began doing this in 6<sup>th</sup> grade. It is not tested on STAAR as A.5(A), which traditionally has required students to solve equations with no context, but it is foundational for success on A.2(I), which IS tested on STAAR and requires that students can generate an equation from a word problem. Further, this lesson provides a smooth transition to Unit 2, Lesson 1, in which students are interpreting scenarios to generate inequalities.</p> <p><b>Opportunities to CFU</b></p> <ul style="list-style-type: none"> <li>✓ INM: 2d, 3b, 4a</li> <li>✓ Student Practice: 1, 4</li> </ul> <p><b>Other Notes to Inform Your Planning</b></p> <p>For <b>Do Now</b>: This Do Now is included to help students recall that all parts of an expression represent something – there should be no extra or missing parts.</p> <p>For <b>INM</b>: #2 is very similar to what students had to do in 6<sup>th</sup> and 7<sup>th</sup> grade. #s 3 and 4 lay the foundation for work students will do in Unit 6, on Systems of Equations. Still, they give students the opportunity to substitute given values and solve for the one variable that remains.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center; background-color: yellow;"><b>Focus on Disciplinary Literacy</b></p> <div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 10px;">Debrief</div> </div> </div> <p>For <b>Student Practice</b>: Because students only have one equation (rather than a system) with two variables (instead of just 1), <b>4c</b> gives them the value of one of the variables to substitute.</p>	<span style="color: red;">■</span>	Do Now (7 min)	<span style="color: blue;">■</span>	INM (20 min)	<span style="color: green;">■</span>	Debrief (3 min)	<span style="color: purple;">■</span>	Student Practice (15 min)	<span style="color: pink;">■</span>	Exit Ticket (10 min)	<p><b>Lesson Look Fors</b></p> <p><u>Look for teachers to...</u></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> emphasize defining the variable to prevent confusion.</li> <li><input type="checkbox"/> stamp that every part of an equation represents something from the verbal description.</li> </ul> <p><u>Look for students to...</u></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> generate an equation given a situation and use it to solve for a requested value.</li> <li><input type="checkbox"/> substitute given values to find a missing value (in INM #s 3-4).</li> </ul> <p style="background-color: #e0e0e0; padding: 2px;"><b>Student Know/Do Chart</b></p> <div style="margin-top: 10px;"> <p> Students can generate an equation that represents a verbal description and solve that equation.</p> <p> Each part of an equation generated from a verbal description must represent something from that verbal description.</p> </div>
<span style="color: red;">■</span>	Do Now (7 min)											
<span style="color: blue;">■</span>	INM (20 min)											
<span style="color: green;">■</span>	Debrief (3 min)											
<span style="color: purple;">■</span>	Student Practice (15 min)											
<span style="color: pink;">■</span>	Exit Ticket (10 min)											
<p><b>Important Vocabulary</b></p> <ul style="list-style-type: none"> <li>define a variable</li> <li>substitute</li> </ul>												

## Recommended Success Day Materials and Resources

### A.5A

#### Solving Equations (including CLT and Distributive Property)

1. Bluebonnet Resources: Skills Practice | Lesson SE | Lesson TE
2. Solving Equations Practice Sheet
3. Solving Equations with Special Solutions Practice Sheet
4. General Review: Solving Equations

#### Notes to Inform Your Planning

**Resource #2** is relatively brief and can be used for either small-group or whole-group reteach. While **Resource #3** is primarily on special solutions, it also includes practice on solving equations to get “regular” (unique!) solutions.

**Resource #4** is a lengthy packet also includes A.12(E).

### A.12E

#### Manipulating Literal Equations

1. Bluebonnet Resources: Skills Practice | Lesson SE | Lesson TE
2. Sirius A.12(E) Literal Equations Practice Sheet
3. Potential Reteach Lesson: Illustrative Math
4. GeoGebra practice: a self-checking applet
5. OUR Literal Equations Practice Sheet

#### Notes to Inform Your Planning

A.12(E) is a high priority standard. Students must be able to manipulate equations to be successful in all future units, especially when they encounter forms of linear equations in Unit 4. Prioritize this standard for review

### 6.7A

#### Order of Operations

1. That Quiz: Order of Operations
2. Mathopolis: Order of Operations

#### Notes to Inform Your Planning

**Resource #1** is an online applet that allows students to self-check and control what operations they can be asked about. It can also exclude negative numbers from the problem set. **Resource #2** is also an online applet that allows students to self-check.

If student data indicates a pause point is not necessary, you can opt to move forward and reserve a Success Day to use at a later date.

Standard(s)	Notes for Intellectual Preparation & Lesson Planning
<p>◆ <b>A.5(A)</b> solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides.</p> <p>◆ <b>A.12(E)</b> solve mathematic and scientific formulas, and other literal equations, for a specified variable.</p>	<p><b>Necessary Materials and Pre-Lesson Prep</b></p> <ul style="list-style-type: none"> <li>▪ Ensure you can access UE1 on EdCite.</li> </ul> <p><b>Notes to Inform Your Planning</b></p> <p>Review the Unit 1 Exam on Curriculum Corner. Internalize and create an exemplar for the assessment prior to teaching the unit as part of unpacking the unit. Use your exemplar to spar with the solutions provided in the Assessment Companion on Curriculum Corner.</p> <p>The scanning deadline for the Unit 1 Exam is <b>September 11, 2025</b>.</p> <p>For any test items that are not multiple choice, verify that student responses marked incorrect by Edcite truly are incorrect. (Edcite occasionally does not recognize all possible equivalent correct responses.)</p>

# UNPACKED STANDARDS

Focus standards for this unit.

## Standard Breakdown

Standard	Specificity	STAAR Alignment
<p><b>A.5A</b> solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides</p>	<p><b>Concepts:</b></p> <ul style="list-style-type: none"> <li>- Linear Equations</li> <li>- One-Variable</li> <li>- Distributive Property</li> <li>- Both Sides</li> </ul> <p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>- Solve</li> <li>- Apply</li> </ul> <p><b>Clarifications Including but Not Limited To:</b></p> <ul style="list-style-type: none"> <li>- One-step, two-step and multi-step equations included</li> <li>- Constants and coefficients include a variety of rational numbers</li> <li>- Equations should be written in a variety of forms</li> </ul> <p><b>Limitations:</b></p> <ul style="list-style-type: none"> <li>- Equations limited to one variable</li> </ul> <p><b>Vertical Alignment:</b></p> <ul style="list-style-type: none"> <li>- In 6<sup>th</sup> grade students solved one-step equations containing of positive rational numbers. Students learned to use the inverse operation to isolate the variable by making the coefficient 1 and the constant 0.</li> <li>- In 7<sup>th</sup> grade Pre-Algebra, students solved two-step equations containing positive and negative rational numbers. Students learned to use the inverse operations to isolate the variable by making the coefficient 1 and the constant 0.</li> <li>- In Algebra 2 students will be introduced to absolute value equations and systems of equations containing 3 variables.</li> </ul>	<div data-bbox="1360 345 1392 378" style="background-color: #0056b3; color: white; padding: 2px; text-align: center; font-weight: bold;">29</div> <p>What value of <math>z</math> makes the equation <math>\frac{4}{3}z + 6 = -4\left(\frac{1}{6}z + 9\right)</math> true?</p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>(A) <math>\frac{3}{2}</math></p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>(B) <math>-21</math></p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>(C) <math>\frac{9}{2}</math></p> </div> <div style="border: 1px solid #ccc; padding: 5px;"> <p>(D) <math>-45</math></p> </div> <div data-bbox="1360 857 1392 889" style="background-color: #0056b3; color: white; padding: 2px; text-align: center; font-weight: bold;">46</div> <p>Which value of <math>v</math> makes this equation true? <span style="float: right;"><math>\frac{v-6}{5} = \frac{v+10}{2}</math></span></p> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>(A) <math>-\frac{62}{3}</math></p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>(B) <math>-\frac{16}{3}</math></p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px;"> <p>(C) <math>\frac{38}{7}</math></p> </div> <div style="border: 1px solid #ccc; padding: 5px;"> <p>(D) <math>\frac{11}{7}</math></p> </div>

Standard	Specificity	STAAR Alignment
<p><b>A.12E</b> solve mathematical and scientific formulas, and other literal equations, for a specified variable</p>	<p><b>Concepts:</b></p> <ul style="list-style-type: none"> <li>- Formulas</li> <li>- Literal Equations</li> <li>- Specified Variable</li> </ul> <p><b>Skills:</b></p> <ul style="list-style-type: none"> <li>- Solve</li> </ul> <p><b>Clarifications Including but Not Limited To:</b></p> <ul style="list-style-type: none"> <li>- Formulas and equations contain a variety of rational numbers.</li> </ul>	<div data-bbox="1333 183 1885 621" style="border: 1px solid black; padding: 5px;"> <p><b>31</b></p> <p>Which equation is equivalent to <math>5x - 8y = 40</math> when solved for <math>y</math>?</p> <p>(A) <math>y = -\frac{8}{5}x - 8</math></p> <p>(B) <math>y = -\frac{5}{8}x + 5</math></p> <p>(C) <math>y = \frac{8}{5}x + 8</math></p> <p>(D) <math>y = \frac{5}{8}x - 5</math></p> </div> <p><b>2016</b></p> <p><b>Q18</b> Which of the following is equivalent to <math>3x - 4y = 6</math>?</p> <p><b>F</b> <math>y = -\frac{6}{7}x</math></p> <p><b>G</b> <math>y = -\frac{3}{4}x</math></p> <p><b>H</b> <math>y = \frac{4}{3}x + 2</math></p> <p><b>J</b> <math>y = \frac{3}{4}x - \frac{3}{2}</math></p>

## VERTICAL STANDARDS

This section details the **progression** of key student expectations/standards\*\* in the courses **before** and **after** this course. This will help you understand what **prior knowledge skills to build upon** and guide you in knowing what **skills you are preparing your students** for in the subsequent course.

6 <sup>th</sup> Grade	Algebra I	Algebra II
<p><b>6.7(A)</b> generate equivalent numerical expressions using order of operations, including whole number exponents, and prime factorization</p> <p><b>6.7(D)</b> generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties</p> <p><b>6.10(A)</b> model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts</p> <p><b>6.7(C)</b> determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations</p> <p><b>6.9(A)</b> write one-variable, one-step equations and inequalities to represent constraints or conditions within problems</p> <p><b>6.9(B)</b> represent solutions for one-variable, one-step equations and inequalities on number lines</p> <p><b>6.9(C)</b> write corresponding real-world problems given one-variable, one-step equations or inequalities</p> <p><b>6.10(B)</b> determine if the given value(s) make(s) one-variable, one-step equations or inequalities true</p>	<p><b>A.5A</b> solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides</p> <p><b>A.12E</b> solve mathematic and scientific formulas, and other literal equations, for a specified variable</p>	<p><b>2A.6(E)</b> solve absolute value linear equations</p> <p><b>2A.3(B)</b> solve systems of three linear equations in three variables by using Gaussian elimination, technology with matrices, and substitution</p> <p><b>2A.6(D)</b> formulate absolute value linear equations</p> <p><b>2A.6(F)</b> solve absolute value linear inequalities</p> <p><b>2A.3(E)</b> formulate systems of at least two linear inequalities in two variables</p> <p><b>2A.3(F)</b> solve systems of two or more linear inequalities in two variables</p> <p><b>2A.3(G)</b> determine possible solutions in the solution set of systems of two or more linear inequalities in two variables</p>
Pre-Algebra (7 <sup>th</sup> Grade)		
<p><b>7.11(A)</b> model and solve one-variable, two-step equations and inequalities</p> <p><b>7.10(A)</b> write one-variable, two-step equations and inequalities to represent constraints or conditions within problems</p> <p><b>7.10(B)</b> represent solutions for one-variable, two-step equations and inequalities on number lines</p> <p><b>7.10(C)</b> write a corresponding real-world problem given a one-variable, two-step equation or inequality</p> <p><b>7.11(B)</b> determine if the given value(s) make(s) one-variable, two-step equations and inequalities true</p>		