

<p><b>Learning Goals for this Lesson</b></p>	<p><b>Standards:</b> (M) 7.EE.03 Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.</p>	
<p><b>Students Will Know:</b></p> <ul style="list-style-type: none"> <li>• Venn diagram comparing expressions and equations</li> <li>• The steps to solving one and two step equations.</li> <li>• How to write equations from word problems.</li> </ul>	<p><b>Students Will Be Able To</b></p> <ul style="list-style-type: none"> <li>• Solve one and two step equations.</li> <li>• Write one and two step equations from word problems.</li> </ul>	
<p><b>Lesson Essential Question</b> How do I write and evaluate algebraic equations?</p>		
<p><b>Activating Strategy</b> Solving expressions in the bellringer and writing expressions from word problems</p>		
<p><b>Key vocabulary to preview and vocabulary strategy</b> Equation, two step equation, solution, inverse operation, addition property of equality, subtraction property of equality, multiplication property of equality, division property of equality</p>		
<p><b>Lesson instruction</b></p>		
<p><b>Learning Activity 1</b> Review steps to order of operations. Evaluate one step equations using algebra tiles. The teacher will model one problem for the students and then the students' will model equations, isolating the variable and solving the equations.</p> <p><b>Assessment Prompt for LA 1</b> Students will answer activExpression questions based on their answers to the equations. Students will complete a worksheet on 1 step equations.</p>	<p><b>Graphic Organizer</b> LA 1 - Comparison chart on expressions and equations  LA 2 - Word problem notes  LA 4 - Word problem notes</p>	
<p><b>Learning Activity 2</b> Students will work with 1 step equation word problems. This includes addition, subtraction, multiplication, and division. The teacher will work examples of each type of problem and have students follow along in their interactive notebooks. We will identify what is needed and write it in words first. Then put in the variables and numbers.</p> <p><b>Assessment Prompt for LA 2:</b> Again, students' will answer questions on the activExpressions based on the answers to the equations they solve. Students will complete a worksheet on 1 step equation word problems.</p>		
<p><b>Learning Activity 3</b> Review the order of operations. Note that solving 2-step equations is completed in the inverse order of operations. The students will solve 2-step equations. The teacher will work examples of two step</p>	<p><b>Assignment:</b> A. 1: solving one step equations puzzle A.2: solving equations room scavenger hunt</p>	

<p>equations with the students in their interactive notebooks. Then the students will work examples alone using the same method.</p> <p><b>Assessment Prompt for LA 3</b> Students' will complete a Facing Math with two step equations, a puzzle where students have to solve two step equations, and solve two step equations where students must first combine like terms.</p>	<p>A.3: writing equations and then solving task cards A.4: solving equations QR codes A.5: solving two step equations puzzle</p>
<p><b>Learning Activity 4</b> Students will work with 2 step equation word problems. The teacher will walk through examples and have students follow along in their interactive notebooks. We will identify the variable first, then decide what has to be done to find the final total. We will identify what is needed and write it in words first. Then put in the variables and numbers.</p> <p><b>Assessment Prompt for LA 4</b> Students will work with partners to solve a group of equation word problems. They will then compare their answers to other groups and discuss any discrepancies.</p>	
<p><b>Summarizing Strategy</b> <b>Station Rotation:</b></p> <ol style="list-style-type: none"> <li>1. Task Station: Have the students complete a task covering equations. The task will involve solving one and two step equations and equation word problems. They will work together in groups of 6, and then present their answers to the classroom. Each student will answer the question first, then the group will have to agree on the process and answer the question and present it to the class.</li> <li>2. Game Station: In groups of 6, students will toss the <b>Clever Catch - Algebra 1 Ball (reserved from TTU Lending Library)</b> Students who catch the ball will be answering the problem underneath or closest to their left thumb. Some of the questions could be a review, and some questions could be new and challenging. This can be used as a pre and post as we move through the Expressions and Equations Unit.</li> <li>3. Technology Station: Work on iReady pathways, Mathia, IXL</li> </ol>	