

AGENDAS FOR THE WEEK: 10/19 – 10/23

One-sentence summary of the week's lessons/learning goals: Through relatable real-world problems, guided notes, collaborative practice, and independent problem-solving, students will progress from one-step equations to two-step and multistep linear equations.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
(Include times for each part of your lesson)	Objective(s): SWBAT - Combine like terms using algebra tiles. - Use prior knowledge to solve relatable one-step word problems. - Explain their problem-solving strategies and begin connecting real-world situations to algebraic equations. MAFS/NGSSS: MA.912.AR.2.1 Given a real-world context, write and solve one-variable multistep linear equation.	Objective(s): SWBAT - Represent one-step linear equations using algebra tiles. - Use algebra tiles to solve one-step equations. - Explain how mathematical operations help isolate a variable. MAFS/NGSSS: MA.912.AR.2.1 Given a real-world context, write and solve one-variable multistep linear equation.	Objective(s): SWBAT - Attempt to represent and solve two-step linear equations using algebra tiles. - Identify the operations involved in a two-step equation. - Explain the steps needed to isolate a variable. MAFS/NGSSS: MA.912.AR.2.1 Given a real-world context, write and solve one-variable multistep linear equation.	Objective(s): SWBAT - Solve two-step linear equations using algebraic procedures. - Apply inverse operations in the correct order to isolate a variable. - Show and explain the steps used to solve linear equations.. MAFS/NGSSS: MA.912.AR.2.1 Given a real-world context, write and solve one-variable multistep linear equation	Objective(s): SWBAT - Apply appropriate strategies to solve one-step and two-step linear equations. - Demonstrate their understanding of solving equations through written mathematical work. - Identify and correct errors in their problem-solving process. MAFS/NGSSS: MA.912.AR.2.1 Given a real-world context, write and solve one-variable multistep linear equation
P	Engage (10 minutes) Bellringer: - Students independently complete three problems reviewing combining like terms. - While students work, I will meet with three students individually	Engage (~10 minutes) Bellringer: Students will revisit the equations developed during Monday's thinking activity.	Engage (10 minutes) Bellringer: - Students will independently solve 2-3 one-step equation problems. - Volunteers will work out the problems on the board and explain their strategies.	Engage (10 minutes) Bellringer: Students will independently solve two-step equations similar to those introduced on Wednesday.	-

	to complete the Student Feedback Assessment assignment using their test from Thursday. - After the bellringer, volunteers will solve the problems on the board and explain their reasoning. - Students will compare their answers and ask questions about their peers' solutions.		- Students will compare their answers and ask questions about the solutions.	- Volunteers will present their solutions on the board. - Students will compare their answers, ask questions, and discuss the order of operations used to isolate the variable.	
L A	Explore (60 minutes) Algebra Tiles - Introduce algebra tiles and explain how they represent variables and constants. - Students will explore the tiles and use them to represent and combine like terms. - Students will have time to manipulate the tiles, test different combinations, and become familiar with the materials. - The focus will be on exploration and connecting a familiar concept to a new visual tool. Explain - Students will share what they discovered while using algebra tiles.	Explore (20 minutes) Connecting Equations to Algebra Tiles - Students will examine how the equations from Monday can be represented with algebra tiles. - Students will use the tiles to model each side of an equation and explore how to determine the unknown value. - Students will work collaboratively to test strategies and make connections between the visual models and their previous methods. Explain (20 minutes) Notes - Introduce how algebra tiles can represent both sides of an equation.	Explore (15 minutes) - Present students with two-step equations that are more challenging than the equations they solved on Tuesday. - Students will attempt to solve the equations using algebra tiles and their existing knowledge. - Students will work individually or collaboratively to test different approaches. - Students are encouraged to try, make connections, and explain their thinking even if they do not reach the correct answer. Explain (15-20 minutes) - Notes - Use students' attempts from the thinking	Explore (15 minutes) - Students will attempt additional two-step equations without algebra tiles. - Students will use their existing knowledge and Wednesday's notes to develop a written solution. - Students will compare strategies and identify which operations need to be undone first. - I will observe students' work to identify areas of difficulty before introducing additional guided practice. Explain (15-20 minutes) - Review the process for solving two-step equations using	Explore (20 minutes) Scavenger Review - There are 6 white boards around the classroom, each featuring a top question (solving a one- or two-step equation) and a bottom answer that corresponds to a question on a different board - students will begin at any board, solve the top equation, and search the room for the matching answer displayed at the bottom of another board. - Students continue the sequence until they have successfully visited all 6 boards and returned to their starting point

	- We will discuss how tiles of the same type can be combined and how the tiles represent like terms. - I will clarify questions and misconceptions that arise during exploration. Elaborate (20 minutes) Thinking Activity - Present several short, relatable word problems connected to students' academics and everyday experiences. - Students will independently attempt to solve the problems using their own strategies. - Students will share their approaches and compare different ways of finding an unknown value. - As a class, we will discuss how to represent the situations using one-variable equations. - Emphasis will be placed on connecting students' existing problem-solving strategies to mathematical notation rather than requiring formal equations immediately.	- Model how to use inverse operations and equivalent changes on both sides to isolate the variable. - Connect each step in the visual model to the corresponding algebraic operation. - Work through examples that build from familiar one-step equations. Elaborate (35 minutes) Brain Break and Practice - Provide a short brain break after the notes. - Students will spend the remainder of class practicing one-step equations with algebra tiles. - Students may collaborate, refer to their notes, and ask for assistance. - Encourage students to explain why each step works instead of focusing only on obtaining the answer.	activity to introduce a systematic approach to solving two-step equations. - Explain how inverse operations can be used in the correct order to isolate the variable. - Connect the strategies students attempted with algebra tiles to the symbolic steps used to solve equations. - Work through guided examples and discuss why each step maintains equality. Elaborate (35 minutes) - Students will practice solving two-step equations using written mathematical work rather than relying on algebra tiles. - Begin with guided examples and transition to independent or collaborative practice. - Encourage students to show each step and explain their reasoning. - Provide support and clarification as needed.	written mathematical steps. - Emphasize applying inverse operations in the appropriate order. - Model how to maintain equality throughout the solution process. - Address common errors observed during the thinking activity. Elaborate (35 minutes) - Students will complete a worksheet focused on solving two-step equations without algebra tiles. - Students may work in groups, use their notes, and ask for help. - An answer sheet will be available at the front of the board so students can check their answers. - Students will be encouraged to correct mistakes and show all their work, since the focus is on their mathematical reasoning and process rather than only the final answer.	Explain - Clarify questions about solving one-step and two-step equations. - Review the importance of maintaining equality and showing each step. - Address common misconceptions identified during the week's practice Elaborate - Students will independently complete a quiz assessing their understanding of the week's material. - Students will show their work and demonstrate their equation-solving strategies.
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N	Evaluate and Summary - Observe how students use algebra tiles to combine like terms. - Listen to students' explanations during the thinking activity to identify their prior knowledge of one-step equations. - Use students' strategies and difficulties to inform Tuesday's lesson.	Evaluate and Summary - Check students' models and solutions as they practice. - Ask students to explain how the tiles represent the equation and how they know the variable has been isolated. - Use observations to determine whether students are ready to attempt two-step equations on Wednesday.	Evaluate and Summary - Monitor students' attempts during the thinking activity and their written solutions after the notes. - Check whether students can identify which operation to undo first and explain their reasoning. - Use students' work to identify areas that need additional practice on Thursday.	Evaluate and Summary - Review students' written work to assess their understanding of two-step equations. - Check whether students apply inverse operations correctly and show the steps needed to isolate the variable. - Use the worksheet results to identify concepts to revisit during Friday's review.	Evaluate and Summary - Evaluate students' understanding using their quiz responses and written work. - Identify strengths and areas needing additional instruction. - Use the results to inform upcoming lessons on linear equations
Resources:	- Combining-like-terms bellringer - Thursday's test and Student Feedback Assessment materials - Algebra tiles - Relatable, academy-connected one-step word problems	- Monday's word problems and equations - Algebra tiles - Guided notes and one-step equation examples - One-step equation practice worksheet	- One-step equation bellringer - Algebra tiles - Two-step equation thinking activity - Guided notes and examples - Two-step equation practice worksheet	- Two-step equation bellringer - Two-step equation thinking activity - Guided notes - Written two-step equation practice worksheet - Answer sheet for students to check their work	- One-step and two-step equation review problems - Review worksheet or selected practice problems - Quiz - Notes and whiteboard

Questions to ask students during lesson:

- How do you know which terms can be combined?
- How can algebra tiles help you represent a mathematical expression?
- What does the variable represent in this situation?
- How can you turn this real-world situation into an equation?
- What does each side of the equation represent?
- How can you isolate the variable?
- Why do we perform the same operation on both sides of an equation?
- Which operation should you undo first, and why?
- How can you check whether your solution makes sense?
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Misconceptions or identified areas where students will struggle:

- Combining unlike terms when simplifying expressions.
- Confusing the variable tiles with constant tiles when using algebra tiles.
- Understanding how algebra tiles represent both sides of an equation.
- Recognizing that an equation represents two equal quantities.
- Translating a real-world situation into a one-variable equation.
- Knowing which inverse operation to apply first when solving two-step equations.
- Performing an operation on one side of an equation without making the corresponding change to the other side.
- Making errors with positive and negative values when manipulating algebra tiles or writing equations.
- Skipping steps when writing a solution, making it difficult to follow their reasoning.
- Relying on the final answer rather than checking whether each step is mathematically valid.