

Dear Family,

In this module, *Equations and Inequalities*, students draw on their knowledge of expressions, inequality symbols, and inverse operations to develop understanding of equations and inequalities. They use their understanding of models, properties of equality, and substitution to build fluency with writing and solving one-step addition, subtraction, multiplication, and division equations. Fluency is also built through writing, solving, and graphing inequalities.

What Did Students Learn Previously?

In previous modules students learned to write and simplify algebraic expressions, perform operations with integers, use the *guess, check and revise* strategy, and to understand and use number lines. They also have previously learned to be fluent with the four inequality symbols and the use of a positive number line.

What Will Students Learn in This Module?

Using Substitution to Solve Equations

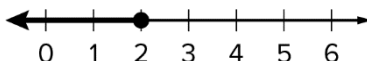
- Students draw on their knowledge of equivalent expressions to begin to develop understanding of one-step equations. They will come to understand that **solving** an algebraic equation means finding a value for the variable (or **solution**) that results in a true sentence, and they build fluency with using the **guess, check, and revise strategy** to **solve** one-step equations.

Using the Properties of Equality to Solve Equations

- Students will develop understanding of one-step equations. They learn how to use a model and the **Properties of Equality** to build fluency with **solving** one-step addition, subtraction, multiplication or division equations involving whole numbers and fractions.
- They apply their understanding of writing and solving one-step equations to solve multi-step, real-world problems.

Inequalities

- Students will draw on their knowledge of the four **inequality** symbols and the substitution method to develop understanding of inequalities. They use this understanding to build fluency with writing, solving, and graphing **inequalities** involving whole numbers, decimals, and fractions.
- For example, the graph $x \leq 2$ would be shaded to include 2 and everything less than 2.



What Vocabulary Terms Will Students Use?

Term	Definition
equation	A mathematical sentence showing two expressions are equal.
guess, check, and revise strategy	A strategy used to solve a problem that involves narrowing in on the correct answer using educated guesses.
inequality	A mathematical sentence indicating that two quantities are not equal.
inverse operations	Operations which undo each other.
solution	The value of a variable that makes an equation true.
solve	To replace a variable with a value that results in a true sentence.
Properties of Equality	The Properties that state that you can perform the same operation on both sides of an equation and the sides remain equal.

How You Can Provide Support

- Support your child's understanding of equations by asking them to use an equation to explain how to solve problems in everyday life.
 - Shopping:* When you are at the store have your child find the amount of change from a purchase made with cash for example when buying a gallon of milk at \$2.49 what would be the change from \$5?
 - Dinner:* Find situations where a quantity of something is shared among a group of people and ask how many each person would get. For example, with a package of 12 dinner rolls how many would each person get if there were 4 people at dinner? What if there were 6 people at dinner?
- Encourage your child to have a positive, growth-oriented attitude towards mathematics and their learning.
 - Encourage them to ask questions – both at home and in class. Sometimes, an answer to a question will generate more questions. That's how you know they are learning!
 - Encourage your child to embrace challenges and remind them that every challenge is an opportunity to learn something new.
 - Celebrate successes – both small and large.
- Contact me to arrange a time to discuss the specifics of your child's performance and how we can work together to help them succeed in this module.

Sincerely,

(Teacher's Name)

(Email/Phone)