

Grade 7 - Unit 7 Equations

PR07 Students will be expected to model and solve, concretely, pictorially, and symbolically, where a , b , and c are whole numbers, problems that can be represented by linear equations of the form

- $ax + b = c$
- $ax = b$
- $(x/a) = b, a \neq 0$

Performance Indicators

PR07.01 Represent a given problem with a linear equation, and solve the equation using concrete models.

PR07.02 Draw a visual representation of the steps used to solve a given linear equation.

PR07.03 Solve a given problem using a linear equation and record the process.

PR07.04 Verify the solution to a given linear equation using concrete materials and diagrams.

PR07.05 Substitute a possible solution for the variable in a given linear equation into the original linear equation to verify the equality.

Limited	Developing	Competent	In Depth
Student can represent a given linear equation involving whole numbers using concrete materials. Student can estimate both reasonable and unreasonable solutions to a problem. Student can draw a picture to help make sense of a word problem.	Student can represent and solve a given linear equation involving whole numbers concretely, pictorially, or symbolically. Student can verify solutions to linear equations in the form of $ax + b = c$, $ax=b$, and $(x/a)=b$, $a \neq 0$, where a, b, and c are whole numbers, using concrete materials, pictures or by substituting a possible value for the variable. Student can identify the relevant information in a word problem.	Student can represent and solve a given linear equation involving whole numbers concretely, pictorially, and symbolically. Student can verify solutions to linear equations in the form of $ax + b = c$, $ax=b$, and $(x/a)=b$, $a \neq 0$, where a, b, and c are whole numbers, using concrete materials, pictures and by substituting a possible value for the variable. Student can create a linear equation in the form of $ax + b = c$, $ax=b$, and $(x/a)=b$, $a \neq 0$, where a, b, and c are whole numbers, to solve a given problem and record the process.	Student can solve a linear equation flexibly using a variety of methods, record the process and verify solutions. Student can create and solve a real-world problem relating to linear equations with a meaningful and relevant context to my own life.