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Resource ID#: 131528

Primary Type: Tutorial

Direct Link: <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-solving-equations/cc-8th-equations-distribution/v/equation-special-cases>

Solving an equation with variables on both sides

Students will learn how to solve an equation with variables on both sides. Students will also learn how to distribute and combine like terms.

General Information

Subject(s): Mathematics

Grade Level(s): 8

Intended Audience: [Students](#)

Instructional Time: 5 Minute(s)

Suggested Technology: Computers for Students, Internet Connection, Speakers/Headphones

Keywords: equation, distribute, like terms, variable

Instructional Component Type(s): [Tutorial](#)

Instructional Design Framework(s): [Demonstration](#)

Resource Collection: Secondary Math specific existing tutorials

Source and Access Information

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Name of Author/Source: Khan Academy

District/Organization of Contributor(s): Leon

Access Privileges: Public

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Aligned Standards

Name	Description
MAFS.8.EE.3.7:	<p>Solve linear equations in one variable.</p> <ol style="list-style-type: none"> Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers). Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Clarifications: Fluency Expectations or Examples of Culminating Standards</p> <p>Students have been working informally with one-variable linear equations since as early as kindergarten. This</p> </div>

important line of development culminates in grade 8 with the solution of general one-variable linear equations, including cases with infinitely many solutions or no solutions as well as cases requiring algebraic manipulation using properties of operations. Coefficients and constants in these equations may be any rational numbers.

Examples of Opportunities for In-Depth Focus

This is a culminating standard for solving one-variable linear equations.