

4.1

(3) CST items

Students simplify expressions before solving linear equations ~~and inequalities~~ in one variable, such as $3(2x - 5) + 4(x - 2) = 12$.

Key Vocabulary

Expression
Variable

Equation
Term

Simplify
Like Terms

Solve
Distributive Property

Instructional Objectives

1	Solve a one-step equation for the value of an unknown variable.	1	Solve for x : $x - 5 = 7$
		2	Solve for x : $-\frac{3}{4}x = -15$
		3	Solve for x : $x + 9 = 5$
		4	Solve for x : $6x = 42$
2	Solve a two-step equation for the value of an unknown variable.	1	Solve for x : $2x + 1 = 13$
		2	Solve for x : $-4x - 3 = -23$
		3	Solve for x : $4x + 9 = 17$
		4	Solve for x : $\frac{1}{2}x - 10 = -4$
3	Apply the distributive property to simplify expressions.	1	Simplify: $5(2x + 12)$
		2	Simplify: $-3(-7x + 2y - 4)$
		3	Simplify: $6x(3x + 8)$
		4	Simplify: $x(x + y - z)$
4	Combine like terms to simplify expressions.	1	Simplify: $5x + 9x - 12x$
		2	Simplify: $-8x + 7 + 6x + 9$
		3	Simplify: $4x^2 - 10x + 8 - 3x - 1$
		4	Simplify: $5 - 3y + x + 7y + x + 13 - 2$
5	Simplify general expressions, and explain what it means to “simplify” an expression.	1	Simplify: $18 - 3 + 2(1 + 5)$
		2	Simplify: $4(7x - 5)$
		3	Simplify: $9x - 2y - 8 + 4x + 2$
		4	Simplify: $-3(2x - 8) + x - 4 \cdot 5$
6	Simplify and solve multi-step linear equations in one variable.	1	Solve for x : $7(x + 2) = 49$
		2	Solve for x : $-8x + 1 + 2x = -59$
		3	Solve for x : $-3x + 3(4x - 5) = 21$
		4	Solve for x : $3(2x - 5) + 4(x - 2) = 12$