
 NAME

DATE

PERIOD

Cool Down

Lesson 8: Equal and Equivalent

Cool Down: Decisions about Equivalence

Decide if the expressions in each pair are equivalent. Explain or show how you know.

1. $x + x + x + x$ and $4x$

2. $5x$ and $x + 5$

Grade 6 Unit 6 Lesson 8

Learning goals:

- Draw a diagram to represent the value of an expression for a given value of its variable.
- Explain (in writing) that some pairs of expressions are equal for one value of their variable but not for other values.
- Justify (orally, in writing, and through other representations) whether two expressions are “equivalent”.

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Lesson 10: Different Options for Solving One Equation

Cool Down: Solve Two Equations

Solve each equation. Explain or show your reasoning.

$$8.88 = 4.44(x - 7)$$

$$5\left(y + \frac{2}{5}\right) = -13$$

Grade 7 Unit 6 Lesson 10

Learning Goals:

- Critique (orally and in writing) a given solution method for an equation of the form $p(x + q) = r$.
- Evaluate (orally) the usefulness of different approaches for solving a given equation of the form $p(x + q) = r$.
- Recognize that there are two common approaches for solving an equation of the form $p(x + q) = r$ (i.e., expanding using the distributive property or dividing each side by p).

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Lesson 5: Solving Any Linear Equation

Cool Down: Check It

Noah tries to solve the equation $\frac{1}{2}(7x - 6) = 6x - 10$.

Check Noah's work. If it is not correct, describe what is wrong and show the correct work.

$$\begin{array}{rcl}
 \frac{1}{2}(7x - 6) & = & 6x - 10 \\
 7x - 6 & = & 12x - 10 \\
 7x & = & 12x - 4 \\
 -5x & = & -4 \\
 x & = & \frac{4}{5}
 \end{array}$$

Grade 8 Unit 4 Lesson 5

Learning goals:

- Calculate a value that is a solution to a linear equation in one variable, and explain (orally) the steps used to solve the equation.
- Create an expression to represent a number puzzle, and justify (orally) that it is equivalent to another expression.
- Justify (orally) that each step used in solving a linear equation maintains equality.

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