

Section Overview



Determining Solutions of Equations

Lesson 2-4

Why? Because equations are used to represent mathematical relationships in real situations, students can strengthen their problem-solving skills by learning to recognize and identify solutions to equations.

Situation: The Ferris wheel ride costs 3 tokens. After riding the Ferris wheel, Bailey had 5 tokens remaining. How many tokens did Bailey have before riding the Ferris wheel?

$$t - 3 = 5$$

$t = 9$ **is not** a solution because $9 - 3 = 5$ **is not** true.

$t = 8$ **is** a solution because $8 - 3 = 5$ **is** true.

Solving One-Step Equations

Lesson 2-5 through 2-8

Why? Many students can figure out the answers to problems without solving one-step equations. However, they will need to use the concepts learned at this level to solve equations involving fractions and decimals and multi-step equations later in this course.

Equation	Operation	Inverse Operation	Isolating the Variable
$a + 9 = 17$	Addition	Subtraction	$a + 9 = 17$ $\quad -9 \quad -9$ $a = 8$
$y - 11 = 25$	Subtraction	Addition	$y - 11 = 25$ $\quad +11 \quad +11$ $y = 36$
$7b = 21$	Multiplication	Division	$7b = 21$ $\frac{7b}{7} = \frac{21}{7}$ $b = 3$
$\frac{x}{3} = 12$	Division	Multiplication	$\frac{x}{3} = 12$ $\frac{x}{3}(3) = 12(3)$ $x = 36$