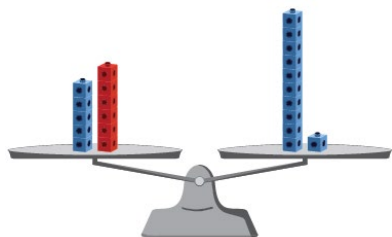# Activity 9 Assessment
Strategies for Solving Equations
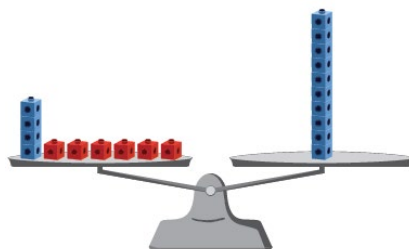
Solving One-Step Addition and Subtraction Equations

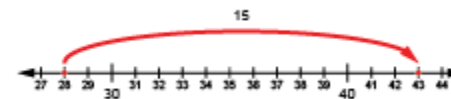| Understands balance as equality	Uses concrete materials to solve for unknown	Uses number relationships (inverse operations)
"5 + 6 equals 11."	$4 + \square = 10$ "I added red cubes, one at a time, until the pans balanced; $\square = 6$."	$28 = \square - 15$ "I rewrote the equation as an addition equation: $28 + 15 = \square$."

Observations/Documentation

Mathology 3
Copyright © 2022 Pearson Canada Inc.

The right to reproduce or modify this page is restricted to purchasing schools.
This page may have been modified from its original.

Activity 9 Assessment
Strategies for Solving Equations

Solving One-Step Addition and Subtraction Equations (con't)		
Decomposes and recomposes numbers (uses associative property) $28 + 15 = 28 + 2 + 13$ $28 + 2 + 13 = 30 + 13$ $30 + 13 = 43$	Describes a situation for a given equation with an unknown $20 - \square = 13$ "I had \$20. I spent some money and now I have \$13. How much did I spend?"	Uses strategies efficiently and flexibly to solve equations of different types (start, result, and change unknown) $27 = \triangle - 18$ "I rewrote using addition: $27 + 18 = \triangle$. Then, I used mental math: $27 + (18 + 2) = 47$, and $47 - 2 = 45$."
Observations/Documentation		

Activity 9 Assessment
Strategies for Solving Equations

Variables and Symbols			
Uses equal sign as balance (left side equals right side) and not equal sign as imbalance 18 + 16 = 10 + 24 18 + 16 ≠ 24 − 10 "The equal sign means that the numbers on both sides are worth the same amount."	Uses symbols to represent unknown quantities 18 + □ = 34 "I used a box to represent the unknown, but I could have used a different shape."	Understands the unknown represents one quantity/value 18 + □ = 34 "The box represents a number that would be added to 18 to make 34. No matter what the symbol is, it will always represent 16."	Solves equations flexibly 18 + □ = 34 34 − □ = 18 34 − 18 = □ "In all of these equations, the symbol represents the same number, 16."
Observations/Documentation			