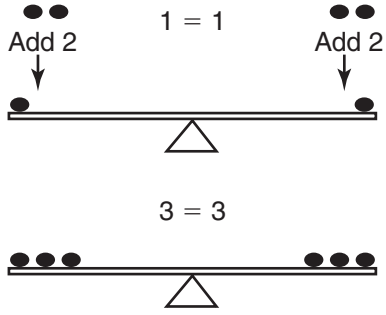
Name _____

Reteaching
4-1

Properties of Equality

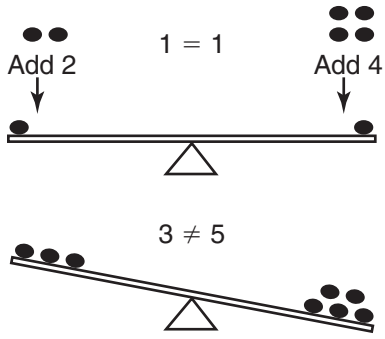
To keep an equation balanced, you must do the same thing to each side.

Balanced Equation



The scale is balanced because both sides **have the same value.** We added the same amount to each side of the equation.

Unbalanced Equation



The equation is not balanced. 3 does not equal 5. We did not add the same amount to both sides of the equation.

Use the Properties of Equality to balance equations.

Add the same number to each side.	$3c = 12$, so $3c + 5 = 12 + 5$
Subtract the same number from each side.	$3c = 12$, so $3c - 3 = 12 - 3$
Multiply each side by the same number.	$3c = 12$, so $3c \times 2 = 12 \times 2$
Divide each side by the same number.	$3c = 12$, so $3c \div 4 = 12 \div 4$

Evaluate the equations.

1. If $16 + 5 = 21$, does $16 + 5 - 4 = 21 - 4$? Why or why not?

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2. If $3p = 27$, does $3p \times 2 = 27 \times 3$? Why or why not?

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3. If $4s - 6 = 18$, does $(4s - 6) \div 2 = 18 \div 2$? Why or why not?

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4. **Reasoning** A pan balance shows $x + 2 = 10$. If you add 5 units to one side, can you balance the scale by adding x units to the other side? Explain.

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