

Name _____ Date _____



Skills Maintenance

Equations with Variables on Both Sides

Activity 1

Solve each equation.

1. $2x + 5 = 3x + 5$

Show your work here:

$x =$ _____

Check your work here:

2. $-6 + x = 2x - 5$

Show your work here:

$x =$ _____

Check your work here:

Activity 2

Rewrite each pattern using an equation with variables that represent the pattern.

Model

$$6 + 2 = 2 + 6$$

$$8 + 5 = 5 + 8$$

$$-1 + -2 = -2 + -1$$

Write the equation. $x + y = y + x$

1. $3(4 + 2) = 3 \cdot 4 + 3 \cdot 2$

$$2(5 + 1) = 2 \cdot 5 + 2 \cdot 1$$

$$6(8 + 2) = 6 \cdot 8 + 6 \cdot 2$$

Write the equation. _____

2. $4 \cdot 1 + 4 \cdot 9 = 4(1 + 9)$

$$2 \cdot 3 + 2 \cdot 8 = 2(3 + 8)$$

$$6 \cdot 5 + 6 \cdot 6 = 6(5 + 6)$$

Write the equation. _____

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**Apply Skills****The Distributive Property in Equations****Activity 1**

Solve the equations using the distributive property. Be sure to show your work and check your answers.

1. $3(x + 5) = 30$

Show your work here:

$x = \underline{\hspace{2cm}}$

Check your work here:

2. $2(x + 10) = 40$

Show your work here:

$x = \underline{\hspace{2cm}}$

Check your work here:

3. $-2(-x + -1) = -12$

Show your work here:

$x = \underline{\hspace{2cm}}$

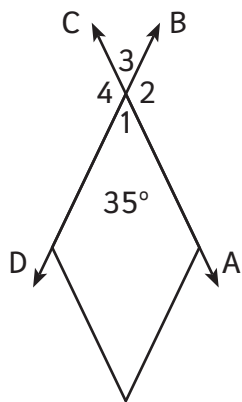
Check your work here:

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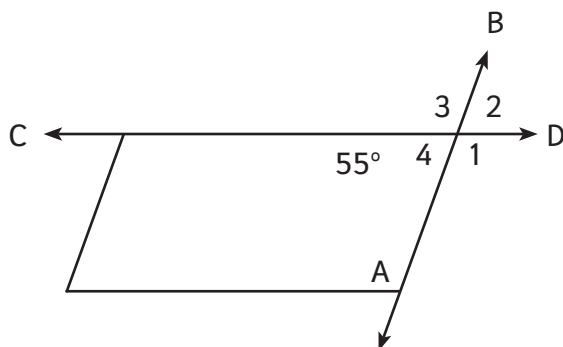
 **Problem-Solving Activity**
Angles and Intersecting Lines

Use algebra to find the total measurement of the exterior angles for each figure. Look for a pattern in the measures of these angles. Can you make a general statement about the measure of angles in straight lines that intersect?

1. What are the measures of $\angle 2$, $\angle 3$, and $\angle 4$?

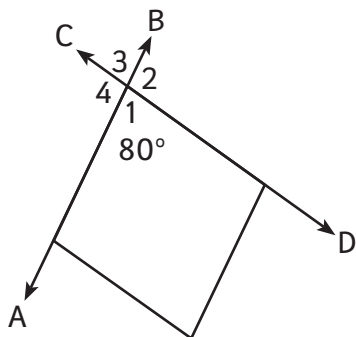


2. What are the measures of $\angle 1$, $\angle 2$, and $\angle 3$?

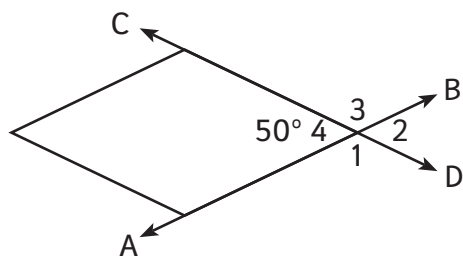


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3. What are the measures of $\angle 2$, $\angle 3$, and $\angle 4$?



4. What are the measures of $\angle 1$, $\angle 2$, and $\angle 3$?



mBook Reinforce Understanding
 Use the mBook *Study Guide* to review lesson concepts.