

Name \_\_\_\_\_ Date \_\_\_\_\_

**Skills Maintenance****Solving Complex Equations****Activity 1**

Solve the equations. Be sure to simplify first, and then solve the simplified equation. Check your answers when you are done.

1.  $4x - 2 + 6 - 5x = 10 + -3 + 2x$   $x =$  \_\_\_\_\_

Show your work here:

Check your work here:

2.  $5 + -6 - 3x = 10x + 15 + 3x$   $x =$  \_\_\_\_\_

Show your work here:

Check your work here:

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### Unit Review

#### Solving Different Kinds of Algebraic Expressions

#### Activity 1

Solve the algebraic expressions. Some problems involve fractions with variables. Show all of your work.

1.  $4x + 5 = 65$   $x =$  \_\_\_\_\_

Show your work here:

Check your answer here:

2.  $-3x - 7 = 20$   $x =$  \_\_\_\_\_

Show your work here:

Check your work here:

3.  $2x - 3 = x + 7$   $x =$  \_\_\_\_\_

Show your work here:

Check your work here:

4.  $\frac{1}{3}x = 10$   $x =$  \_\_\_\_\_

Check your work here:

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5.  $\frac{x}{2} + 1 = 9$   $x =$  \_\_\_\_\_

Show your work here:

Check your work here:

7.  $9x - 3 = 15$   $x =$  \_\_\_\_\_

Show your work here:

Check your work here:

6.  $-\frac{x}{2} + 1 = 9$   $x =$  \_\_\_\_\_

Show your work here:

Check your work here:

8.  $3x - 5 = -23$   $x =$  \_\_\_\_\_

Show your work here:

Check your work here:

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**Activity 2**

Solve the algebra word problems. Write an equation with a variable for each problem. Draw a picture if you need to.

1. Two numbers add up to 80. The larger number is three times greater than the smaller number. What are the two numbers?  
\_\_\_\_\_
  
2. Two cars are traveling across the Nevada desert on the same road. They are driving toward each other. One car starts in Reno driving at 50 miles per hour. The other car starts in Las Vegas driving at 60 miles per hour. It is about 440 miles between the two cities. How long until they meet? \_\_\_\_\_
  
3. Howard, Jamal, and Michael are brothers. Howard is the youngest. Michael is the oldest. Jamal is 3 years older than Howard. Michael is 7 years older than Howard. Their combined ages are 40. How old is each brother?  
\_\_\_\_\_

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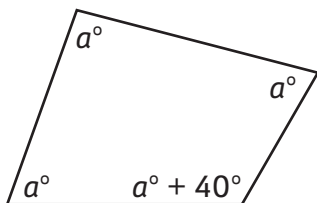


**Unit Review**  
Lines and Angles

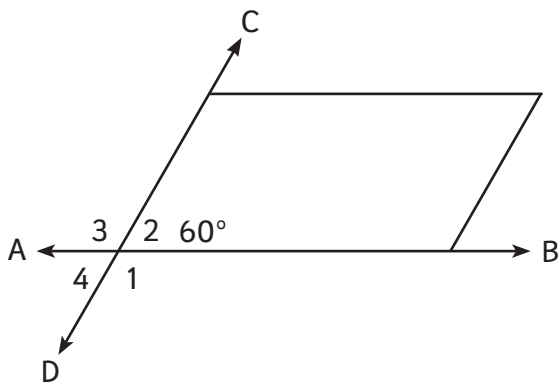
**Activity 1**

Find the measurement of each angle in the quadrilaterals.

1.  $a =$  \_\_\_\_\_



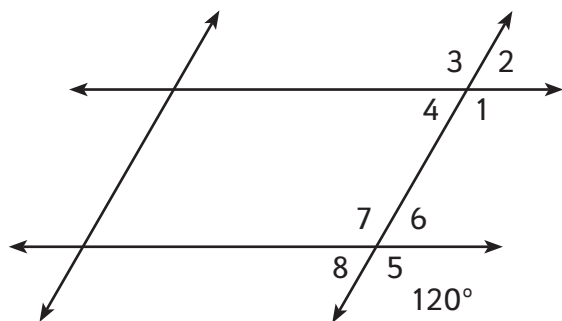
2. What are the measures of  $\angle 1$ ,  $\angle 3$ , and  $\angle 4$ ?



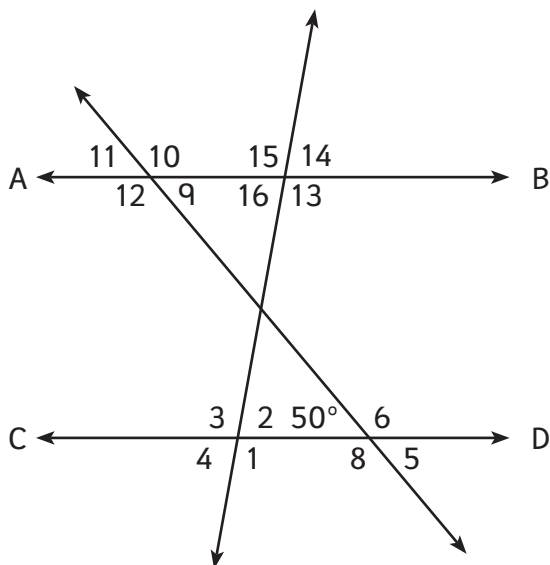
What rules or properties did you use to find the angle measurements?

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3. What is the measure of  $\angle 4$ ? \_\_\_\_\_



4. Find the measure of  $\angle 12$ . Lines AB and CD are parallel.  
 $\angle 12 =$  \_\_\_\_\_



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