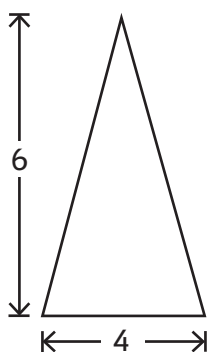Name _____ Date _____

Skills Maintenance
Area Formulas and Algebra
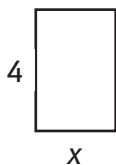
Activity 1

Use algebra and common area formulas to solve the problems.

1. What is the area of this triangle? The formula is
   $A = \frac{1}{2} \cdot b \cdot h$ _____

2. What is the measure of the base of this rectangle if its area is
   20 square units? The formula is $A = b \cdot h$ _____

3. What is the measure of the height of this rectangle if the area is
   27 square units? _____

Name _____ Date _____

Apply Skills
Commutative and Associative Properties

Activity 1

Solve the problems using the properties you learned to simplify your work.

1. $2x - 4 + 7 - 8 + x + 3x + 4 = -7$

Simplify the equation here:

Solve the simplified equation here:

$x =$ _____

Check your work here:

2. $-2 = 3 + x + 4 + -x + x - 4$

Simplify the equation here:

Solve the simplified equation here:

$x =$ _____

Check your work here:

3. $2x + 4 = -5 + x + 7 + 2x + -2 - 1$

Simplify the equation here:

Solve the simplified equation here:

$x =$ _____

Check your work here:

4. $4 + 5 - 3 - 1 + 2x - 4 = x + 1$

Simplify the equation here:

Solve the simplified equation here:

$x =$ _____

Check your work here:

Name _____ Date _____

Problem-Solving Activity
Proving Angles Are Equal

Use the vertical and corresponding angles rules, as well as the transitive property, to solve the following problems. Be sure to write the reasons for each step in your proof.

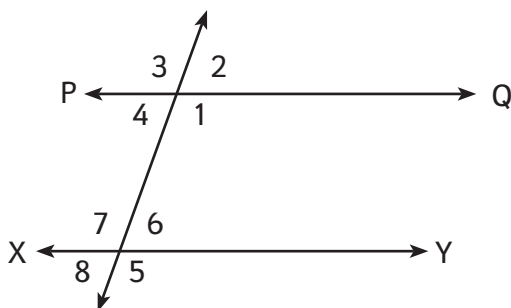1. Lines PQ and XY are parallel. Prove that ∠3 and ∠5 are equal.

_____

_____

_____

2. Lines RS and TU are parallel. Prove that ∠4 and ∠6 are equal.

_____

_____

_____

Name _____ Date _____

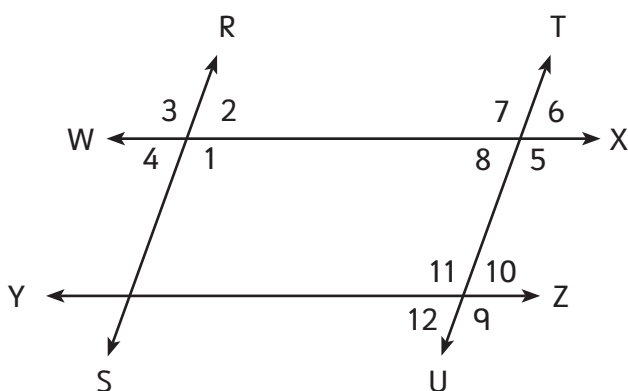**3.** Lines RS and TU are parallel. Lines WX and YZ are parallel. Prove that ∠1 and ∠10 are equal.
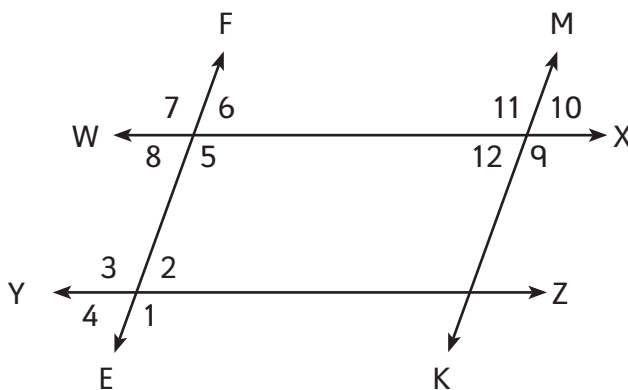
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4. Lines EF and KM are parallel. Lines WX and YZ are parallel. Prove that ∠4 and ∠10 are equal.

_____

_____

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