Name _____ Date _____

Skills Maintenance

Equations With Integers

Activity 1

Solve the problems.

1. $-2x = -16$

Show your work here:

$x =$ _____

Check your work here:

2. $-3x - -4 = -8$

Show your work here:

$x =$ _____

Check your work here:

Angles of Quadrilaterals

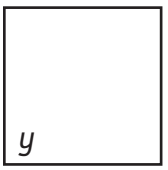
Activity 2

Tell the measure of the missing angle in the quadrilaterals. Remember, the sum of the interior angles for parallelograms is always 360 degrees.

1.

Angle $x =$ _____

2.



Angle $y =$ _____

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Apply Skills

Variables on Both Sides of the Equal Sign

Activity 1

Solve the equations that have variables on both sides of the equal sign. Show all of your work. Check your answer by substituting the value back into the original equation.

Model

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

Show your work here:

$x =$ _____

Check your work here:

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

Show your work here:

$x =$ _____

Check your work here:

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3. $6x - 4 = -4x + 36$

Show your work here:

$x =$ _____

Check your work here:

4. $-2 - 6 - x = -2x - 6$

Show your work here:

$x =$ _____

Check your work here:

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Problem-Solving Activity

Using Drawings to Solve Rate Problems

Draw to help you set up the problems. Then follow the steps you learned in this lesson to solve each problem. Remember that these problems are based on the formula $r \cdot t = d$. Make sure that you answer what the problem is asking for.

1. Two cars start out in two different cities. The cities are 270 miles apart. The cars are driving toward each other on the same road. The first car's speed is 50 miles per hour. The second car's speed is 40 miles per hour. How long before they meet? _____

2. Jing and Maya are riding their bikes. They start at Jing's house, but they go opposite directions. Both are going the same speed and they ride for 2 hours. At the end of that time, they are 40 miles apart. How fast are they riding (in miles per hour)?

_____

$40 = 2 \cdot 2x$

$40 = 4x$

$x = 10$

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3. Bill and Carl are running a race for cancer. Each person gets $3 for every mile he runs. Bill is running 8 miles per hour and Carl is running 12 miles per hour. How long will they have to run before they go 60 miles? _____

4. Two space satellites are going to crash into each other in their next orbit around Earth. They are now 5,000 miles apart. The first satellite is traveling 200 miles per minute and the second satellite is traveling 300 miles per minute. How many minutes until they crash? _____

5. Howard's water pipes froze under his house during the winter. When it warmed up, he had two big leaks. One leaked at a rate of 3 gallons per hour and the second at a rate of 1 gallon per hour. How long did it take before 20 gallons of water leaked from his pipes? _____

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