

NAME _____

DATE _____

Area & Perimeter

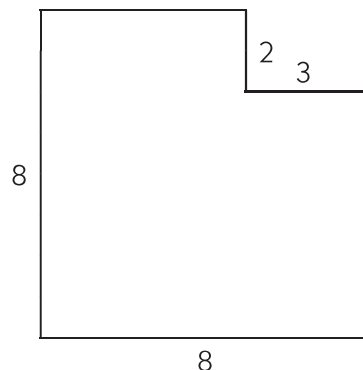
1 Find the area and perimeter of each rectangle. Area is the total amount of space covered by the rectangle. Perimeter is the distance around the rectangle.

<p>example</p> <div style="text-align: center; margin-bottom: 10px;"> </div> <p>Perimeter <u>3 + 3 + 5 + 5 = 16 units</u></p> <p>Area <u>3 x 5 = 15 square units</u></p>	<p>a</p> <div style="text-align: center; margin-bottom: 10px;"> </div> <p>Perimeter _____</p> <p>Area _____</p>
<p>b</p> <div style="text-align: center; margin-bottom: 10px;"> </div> <p>Perimeter _____</p> <p>Area _____</p>	<p>c</p> <div style="text-align: center; margin-bottom: 10px;"> </div> <p>Perimeter _____</p> <p>Area _____</p>



CHALLENGE

2 Find the area and perimeter of this shape. Show all your work.



Perimeter _____

Area _____

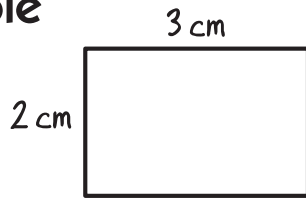
NAME _____

DATE _____

Measuring to Find Area & Perimeter

Use the centimeter side of a ruler to measure each rectangle below. Then find the area and perimeter of each rectangle. *Area* is the total amount of space covered by the rectangle, and *perimeter* is the total distance around the rectangle.

example



Area 6 cm²

Perimeter 10 cm

1



Area _____

Perimeter _____

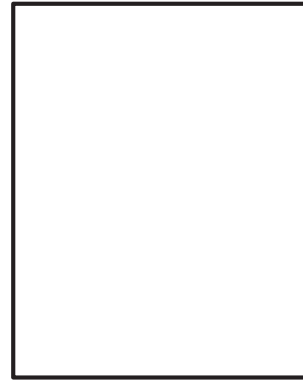
2



Area _____

Perimeter _____

3



Area _____

Perimeter _____



4



Area _____ Perimeter _____

NAME _____

DATE _____

Choosing a Strategy

Before you start working on a problem, it can help to decide what strategy you will use to solve it. Choose a strategy that will help you solve this problem. Explain your choice. Then solve the problem and double-check your answer.

1 A rectangle has a perimeter of 24 centimeters. It is 2 centimeters longer than it is wide. What is the width of the rectangle? What is the length of the rectangle?

a Fill in the bubble to show which strategy you will use to solve this problem.

make an organized list

draw a picture

look for a pattern

use logical reasoning

b Explain why you chose this strategy.

c Solve the problem. Show all your work.

d Double-check your answer.

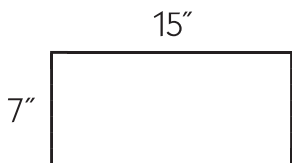
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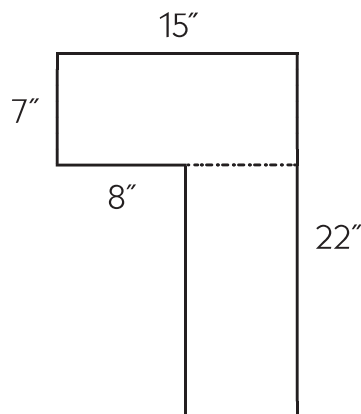
Area Problems

Determine the area of each figure below. Some figures are divided into rectangles for you with dotted lines. Show all your work.

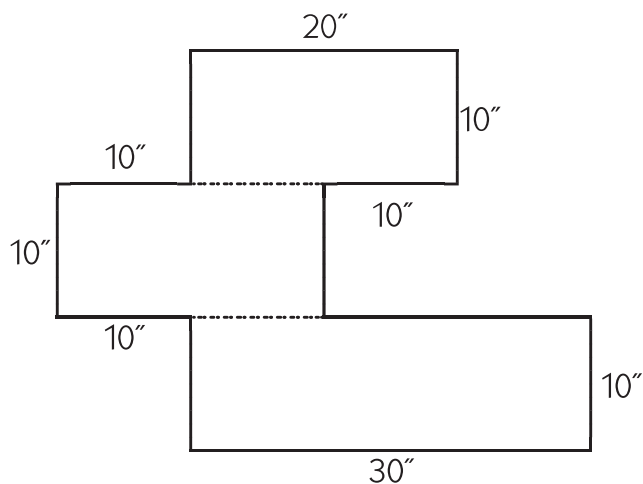
1 Area = _____



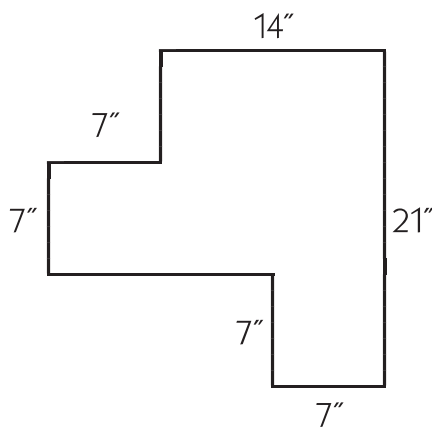
2 Area = _____



3 Area = _____



4 Area = _____

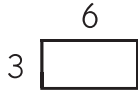
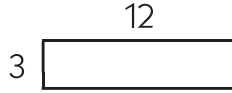
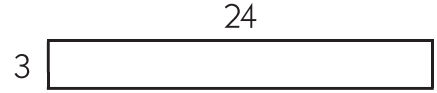


NAME _____

DATE _____

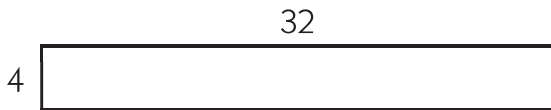
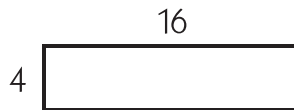
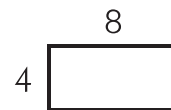
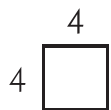
Thinking about Area

1 Determine the area of each rectangle below. Write the area inside the rectangle.

a**b****c****d**

e Look at the rectangles above. What happens to the area of the rectangle when one of the dimensions is doubled?

2 Determine the area of each rectangle below. Write the area inside the rectangle.

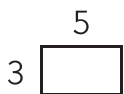
a**b****c****d**

e Look at the rectangles above. What happens to the area of the rectangle when one of the dimensions is halved?



CHALLENGE

3 What happens to the area of a rectangle when both dimensions are doubled? Start with this rectangle and then draw and label two more rectangles to show what happens.



NAME _____

DATE _____

Jeff's Wallpaper Problem

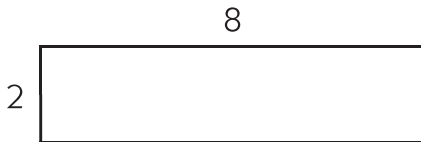
1 Jeff is going to hang wallpaper on the big wall in his living room. The wall is 16 feet tall and 23 feet wide. There is a window in the middle of the wall that is 5 feet tall and 8 feet wide. How many square feet of wall does Jeff have to cover with wallpaper? Hint: *Draw a picture.* Show all of your work.

2 The wallpaper Jeff wants to use comes in rolls that are 1 yard wide and 10 yards long. How many square feet of wallpaper are in each roll? Show all of your work.



CHALLENGE

3 What happens to the area of a rectangle if you double one side while cutting the other side in half? Start with the rectangle below. Draw and label two more rectangles to show what happens.



★ Independent Worksheet 1



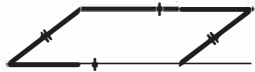
INDEPENDENT WORKSHEET

Analyzing Quadrilaterals & Drawing Figures

A quadrilateral is any polygon that has 4 sides. There are many kinds of quadrilaterals, including:



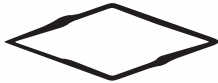
trapezoid a quadrilateral with exactly 1 pair of parallel sides



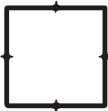
parallelogram a quadrilateral with 2 pairs of parallel sides



rectangle a parallelogram with 4 right angles



rhombus a parallelogram with 4 congruent sides



square a parallelogram with 4 congruent sides and 4 right angles

1 Use a ruler marked in inches to draw the following figures in the boxes below.




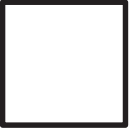

a A trapezoid with one side that is $1\frac{1}{8}$ inches long

b A parallelogram with two sides that are each $1\frac{3}{4}$ inches long

(Continued on back.)

Independent Worksheet 1 Analyzing Quadrilaterals & Drawing Figures (cont.)

2 Look carefully at the figures below. Decide how many right angles, pairs of parallel sides, and pairs of congruent sides each has. Then circle the words that describe what kind of figure it is. You might circle more than one word for some figures.

Figure	Right angles	Pairs of congruent sides (Measure to nearest millimeter to be sure.)	Pairs of parallel sides	Word(s) that describe(s) the figure
a 				trapezoid square parallelogram, rectangle rhombus
b 				trapezoid square parallelogram, rectangle rhombus
c 				trapezoid square parallelogram, rectangle rhombus
d 				trapezoid square parallelogram, rectangle rhombus
e 				trapezoid square parallelogram, rectangle rhombus

(Continued on next page.)

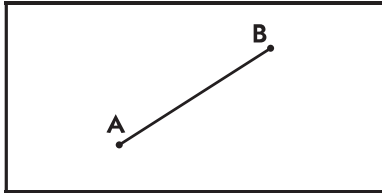
NAME _____

DATE _____

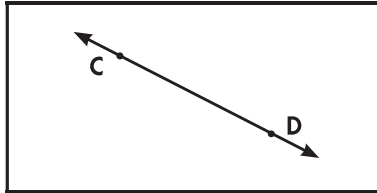
Independent Worksheet 1 Analyzing Quadrilaterals & Drawing Figures (cont.)

3 Use a ruler marked in centimeters and millimeters to draw the line segments, lines, and rays described below. For each one, mark the two points and make sure to use arrows correctly for rays and lines.

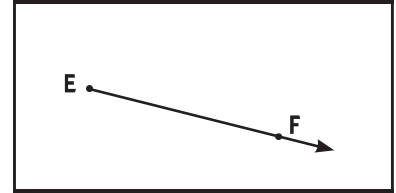
A **line segment** connects two points.



A **line** passes through two points and keeps going in both directions.



A **ray** begins at one point and keeps going in just one direction.



<p>a A line segment that is 3 cm long.</p>	<p>b A line segment that is 45 mm long.</p>
<p>c A line that passes through two points that are 4 cm apart.</p>	<p>d A ray that starts at one point and passes through another point that is 35 mm away from the first point.</p>