Practice ▷ Solving Problems About Area and Perimeter
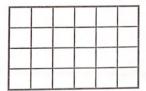
Study the example below. Then solve problems 19–21.

Example

Look at the rectangle below. Draw a rectangle that has the same perimeter but a different area.

The perimeter of the rectangle is 20 units, and the area is 24 square units. The rectangle the student draws needs to have a perimeter of 20 units, too.

Look at how you could show your work using a drawing.

Pair/Share
What other rectangles could you draw?

19 Jared's dad built a square deck in his backyard. One side of the deck is 10 feet long. What is the perimeter of the deck?

Show your work.

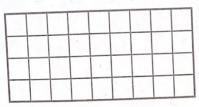The sides of a square are all the same length. How many sides do you need to add together to find the perimeter?

Pair/Share
What equation could you write to find the perimeter?

Solution _____

Look at the rectangle below. Draw a rectangle that has the same area but a different perimeter.
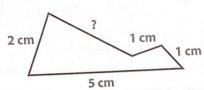

Show your work.

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21 The perimeter of the shape below is 12 centimeters.

What is the unknown side length? Circle the letter of the correct answer.

A   2 cm

B   3 cm

C   4 cm

D   9 cm

Rose chose **D** as the correct answer. How did she get that answer?

_____

_____

_____

_____

Practice ▶ **Solving Problems About Area and Perimeter**

Solve the problems.

1 Su drew a rectangle that is 6 inches long and 5 inches wide. What is the perimeter of the rectangle?

   A 11 inches   **C** 22 inches

   B 17 inches   **D** 30 inches

2 Rachel has 20 feet of fencing to put around a rectangular section of her lawn. The fencing must go around the perimeter of the rectangular section with no overlap.

Choose *Yes* or *No* to tell whether Rachel has exactly enough fencing for each rectangular section shown. The area of each ☐ is 1 square foot.

a.   ☐ Yes   ☐ No

b.   ☐ Yes   ☐ No

c.   ☐ Yes   ☐ No

d.   ☐ Yes   ☐ No

3 Which of the following is an example of perimeter? Circle the letter for all that apply.

   A grass covering a backyard

   B the border around a picture

   C carpet in a room

   D the fence around a park

   E the amount of water in a swimming pool

Look at the rectangle below. The area of each ☐ is 1 square unit.

Part A Find the perimeter and area of the rectangle.

Perimeter: _____ units   Area: _____ square units

Part B Use the grid to draw a rectangle that has the same perimeter but a different area than the rectangle in Part A. Write the perimeter and area of your new rectangle.

Perimeter: _____ units   Area: _____ square units

Part C Use the grid to draw a rectangle that has the same area but a different perimeter than the rectangle in Part A. Write the perimeter and area of your new rectangle.

Perimeter: _____ units   Area: _____ square units

✓ **Self Check** Go back and see what you can check off on the Self Check on page 211.