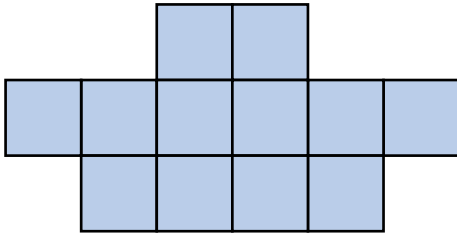


Student Guide

Area Problems (SG pp. 186–187)
Questions 1–3

- Shapes will vary. Sample shape with an area of 12 sq cm:



- 7 squares
 - 4 rows
 - 28 sq cm
- 3 rows of 9 squares is 27 sq cm.

Area Problems

Here are 12 square centimeters. A **square centimeter** is the area of a square that is 1 centimeter long on each side.

These 12 square centimeter can be put together edge-to-edge to make several different shapes.

Shape A

Shape B

Shape C

Each of the shapes above has an area of 12 square centimeters. This is sometimes written as 12 sq cm.

- Draw 2 different shapes with an area of 12 square centimeters. Use *Centimeter Grid Paper*.

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Area Problems

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- Show or tell how to find the area of the shaded rectangle below.

Shape D

- How many squares are in each row?
- How many rows are in the rectangle?
- What is the area of the rectangle?

- Show how to find the area of the shaded rectangle below.

Shape E

Use the *Strategies to Find Area* pages in the *Student Activity Book* to practice finding area.

Area Problems
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*Answers and/or discussion are included in the lesson.

Homework

You will need 2 pieces of *Centimeter Grid Paper* and a centimeter ruler to complete the homework.

- Show or tell how to find the area of each shape. Use a ruler to measure the side lengths of the shape in Question 1D. The area of each small square is 1 sq cm.

A.

C.

B.

D.
- Draw each shape on *Centimeter Grid Paper*.
 - Draw a rectangle with an area of 21 sq cm. Write a multiplication sentence to show how to find the area.
 - Draw a shape that is not a rectangle and has an area of 21 sq cm.
 - Draw a shape that has an area of 14 sq cm.
 - Draw a triangle with the area of 6 sq cm. Explain how you did this.
 - Draw a shape with more than 4 sides that has an area of 16 sq cm.

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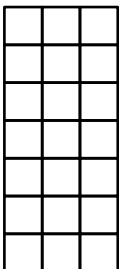
Homework (SG p. 188)

Questions 1–2

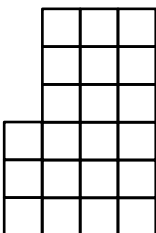
- I. **A.** 8 sq cm; Strategies will vary. One possible strategy is to divide the shape into several rectangles and find the area of each rectangle. $2\text{ cm} \times 1\text{ cm} + 2\text{ cm} \times 2\text{ cm} + 2\text{ cm} \times 1\text{ cm} = 8\text{ sq cm}$
- B.** 7.5 sq cm; Strategies will vary. One possible strategy is to find the area of the rectangle two of the triangles will make and divide that area in half. $5\text{ cm} \times 3\text{ cm} \div 2 = 7.5\text{ sq cm}$
- C.** 15 sq cm; Strategies will vary. One possible strategy is to find the area by multiplying length times width. $3\text{ cm} \times 5\text{ cm} = 15\text{ sq cm}$
- D.** 16 sq cm; Strategies will vary. Length \times width is $4\text{ cm} \times 4\text{ cm} = 16\text{ sq cm}$.

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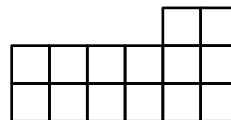
2. **A.** Rectangles will vary. One possible rectangle is shown. $7\text{ cm} \times 3\text{ cm} = 21\text{ sq cm}$.



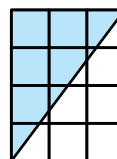
- B.** Shapes will vary. One possible shape is shown.



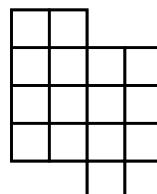
- C.** Shapes will vary. One possible shape is shown.



- D.** Explanations will vary. One possible solution is shown where the triangle has half the area of the 12 sq cm rectangle.



- E.** Shapes will vary. One possible shape is shown.



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