LESSON MAKER PRO

Shape Area Strategies

Split shapes into parts to find total area.

GRADE 6 · 6.G.A.1

CCSS.Math.Content.6.G.A.1 "Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes..."

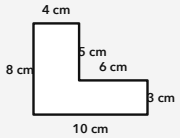
NAME _____ DATE _____

BUILD AND BREAK APART

Find a triangle's area with 1/2 × base × height. For a composite shape, split it into familiar shapes, or subtract a missing part from a larger rectangle.

WORKED EXAMPLE

Find the area of the L-shaped figure.



1. Enclose the shape in a 10 cm by 8 cm rectangle.
2. Find the large rectangle: 10 × 8 = 80.
3. Find the missing rectangle: 6 × 5 = 30.
4. Subtract: 80 - 30 = 50.

Answer: 50 cm²

PRACTICE 4 problems

1 Find the area of a right triangle with a base of 12 cm and a height of 7 cm.

ANSWER _____

2 Find the area of a parallelogram with a base of 9 m and a height of 11 m.

ANSWER _____

3 Find the area of a trapezoid with bases of 13 in. and 17 in. and a height of 2 in.

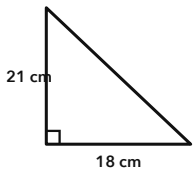
ANSWER _____

4 A sign has a 14 cm by 19 cm rectangle and a triangle on top. The triangle has a base of 14 cm and a height of 16 cm. Find the sign's area.

ANSWER _____

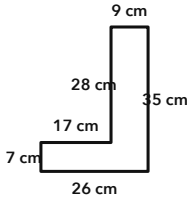
APPLY IT Show your work

1 A gaming club cuts the triangular floor decal shown. What area will the decal cover?



ANSWER _____

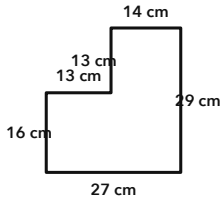
2 The art club makes the L-shaped poster shown. What is its area?



ANSWER _____

CHALLENGE One step up

Find the area of the figure. Explain how you decomposed or subtracted parts.



WORK SPACE AND ANSWER

ANSWER KEY

Shape Area Strategies

GRADE 6 · 6.G.A.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the area of a right triangle with a base of 12 cm and a height of 7 cm.	**42 cm^2**
2	Find the area of a parallelogram with a base of 9 m and a height of 11 m.	**99 m^2**
3	Find the area of a trapezoid with bases of 13 in. and 17 in. and a height of 2 in.	**30 $in.^2$**
4	A sign has a 14 cm by 19 cm rectangle and a triangle on top. The triangle has a base of 14 cm and a height of 16 cm. Find the sign's area.	**378 cm^2**

PART 2 · APPLY IT

1. **189 cm^2** Use the two sides that meet at the right angle as the base and height. 1/2 × 18 × 21 = 189.
2. **434 cm^2** Use a 26 cm by 35 cm rectangle, then subtract the missing 17 cm by 28 cm rectangle. 910 - 476 = 434.

CHALLENGE

614 cm^2. Use a 27 cm by 29 cm rectangle and subtract the missing 13 cm by 13 cm rectangle: 783 - 169 = 614.

Accept equivalent area notation, such as square centimeters. For the challenge, accept any correct decomposition or subtraction method with a correct explanation.