LESSON MAKER PRO

Shape Area Lab

Find area and missing measures

GRADE 6 · 6.GM.2

6.GM.2 "Use mathematical modeling to calculate the area of squares, parallelograms, and triangles to solve problems. Develop and use formulas for the area of squares and parallelograms using a variety of methods including but not limited to the..."

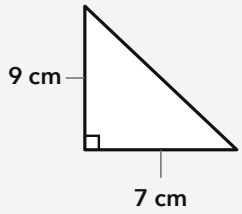
NAME _____ DATE _____

BASE AND HEIGHT

A square's area is side × side. A parallelogram's area is base × perpendicular height. A triangle's area is base × perpendicular height / 2.

WORKED EXAMPLE

Find the area of the triangle.



1. The perpendicular sides are 7 cm and 9 cm.
2. Multiply: 7 × 9 = 63.
3. Divide by 2: 63 / 2 = 31.5.

Answer: 31.5 cm^2

PRACTICE 4 problems

1 A square has a side length of 5 m. Find its area.

ANSWER _____

2 A parallelogram has a base of 12 cm and a perpendicular height of 4 cm. Find its area.

ANSWER _____

3 A triangle has a base of 14 ft and a perpendicular height of 3 ft. Find its area.

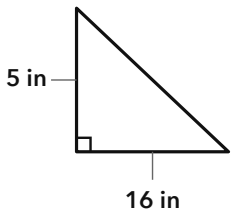
ANSWER _____

4 A triangle has an area of 45 cm^2 and a base of 15 cm. Find its perpendicular height.

ANSWER _____

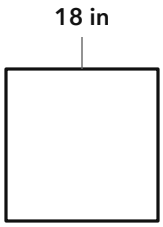
APPLY IT Show your work

1 The art club cuts a pennant in the shape shown. How many square inches of fabric does one pennant need?



ANSWER _____

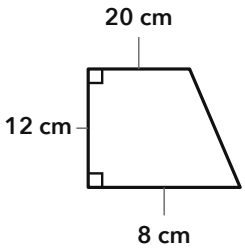
2 A club designs a square floor sticker in the size shown. What is its area?



ANSWER _____

CHALLENGE One step up

Split the figure into a rectangle and a triangle. Find the area of each part and the total area.



WORK SPACE AND ANSWER

ANSWER KEY # Shape Area Lab

GRADE 6 · 6.GM.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A square has a side length of 5 m. Find its area.	**25 m^2**
2	A parallelogram has a base of 12 cm and a perpendicular height of 4 cm. Find its area.	**48 cm^2**
3	A triangle has a base of 14 ft and a perpendicular height of 3 ft. Find its area.	**21 ft^2**
4	A triangle has an area of 45 cm^2 and a base of 15 cm. Find its perpendicular height.	**6 cm**

PART 2 · APPLY IT

1. **40 in^2** The labeled sides are perpendicular. Calculate 16 × 5 / 2 = 40.
2. **324 in^2** Multiply the side length by itself: 18 × 18 = 324.

CHALLENGE

Rectangle: 96 cm^2; triangle: 72 cm^2; total: 168 cm^2.

For the challenge, accept any valid split with correctly calculated part areas and a total of 168 cm^2.