LESSON MAKER PRO

Area in Action

Find area by using heights and combining shapes.

GRADE 6 · 6.GM.2.3

6.GM.2.3 "Find the area of right triangles, other triangles, special quadrilaterals, and polygons that can be decomposed into triangles and other shapes."

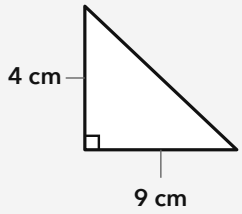
NAME _____ DATE _____

AREA RULES

Use a base and its perpendicular height. A triangle has area b × h / 2, and a parallelogram has area b × h. For a trapezoid, add the two parallel bases, multiply by the height, then divide by 2.

WORKED EXAMPLE

Find the area of the triangle.



1. The labeled sides meet at a right angle.
2. A = 9 × 4 / 2
3. A = 36 / 2

Answer: 18 cm²

PRACTICE 4 problems

1 Triangle: b = 12 cm, h = 5 cm. Find the area.

ANSWER _____

2 Triangle: b = 11 m, h = 8 m. Find the area.

ANSWER _____

3 Parallelogram: b = 13 ft, h = 6 ft. Find the area.

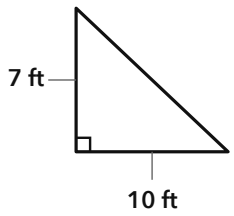
ANSWER _____

4 Trapezoid: parallel bases = 10 cm and 16 cm, h = 7 cm. Find the area.

ANSWER _____

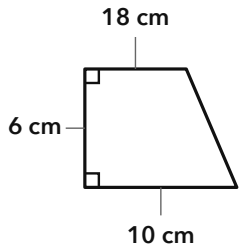
APPLY IT Show your work

1 A skate ramp needs plywood for the triangular side shown. How many square feet of plywood cover one side?



ANSWER _____

2 The art club cuts the patch shown for a tote bag. What is its area?



ANSWER _____

CHALLENGE One step up

A design uses a rectangle measuring 14 cm by 8 cm and a triangle with b = 14 cm and h = 5 cm. The shapes do not overlap. Find their total area. Show one equation.

WORK SPACE AND ANSWER

ANSWER KEY # Area in Action

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Triangle: b = 12 cm, h = 5 cm. Find the area.	**30 cm^2**
2	Triangle: b = 11 m, h = 8 m. Find the area.	**44 m^2**
3	Parallelogram: b = 13 ft, h = 6 ft. Find the area.	**78 ft^2**
4	Trapezoid: parallel bases = 10 cm and 16 cm, h = 7 cm. Find the area.	**91 cm^2**

PART 2 · APPLY IT

1. **35 ft^2** The labeled sides are perpendicular. Divide their product by 2: 10 × 7 / 2 = 35.
2. **84 cm^2** The parallel bases are 18 cm and 10 cm, and the perpendicular side is the 6 cm height. Calculate (18 + 10) × 6 / 2 = 84.

CHALLENGE

14 × 8 + 14 × 5 / 2 = 147 cm^2

Accept equivalent equations with correct square units. For the challenge, students may find each area separately before adding.