# Y6 Area Parallelograms

KS2 Y6 Maths · Follows the national curriculum

Name _____ Class _____ Date _____

## 1. Worked example

**Find the area of a parallelogram with base 7 cm and perpendicular height 4 cm.**

Step 1 · Area = base × perpendicular height

$7 \times 4$

**Answer: 28 cm²**

Check: Cut and move the end triangle to make a 7 cm × 4 cm rectangle ✓

## 2. Now try one with the steps

**A parallelogram has base 9 cm, sloping sides of 6 cm and a perpendicular height of 5 cm. Find its area.**

Step 1 · Ignore the sloping side for area

Step 2 · 9 × 5

**Answer:**

## 3. Practice

Have a go at each one. There is space underneath to work it out.

1. Find the area of a parallelogram with base 6 cm and height 3 cm.

2. Find the area of a parallelogram with base 10 cm and height 4 cm.

3. Find the area of a parallelogram with base 12 cm and height 5 cm.

4. A parallelogram has base 8 cm, sloping sides of 9 cm and height 7 cm. Find its area.

**5.** Find the area of a parallelogram with base 15 cm and height 6 cm.

**6.** Find the area of a parallelogram with base 4.5 cm and height 2 cm.

**7.** A parallelogram-shaped patio has base 9 m and height 3 m. Find its area.

**8.** A parallelogram has an area of 48 $cm^2$ and a base of 8 cm. What is its height?

**9.** A parallelogram has an area of 63 $cm^2$ and a height of 7 cm. What is its base?

**10.** Compare the areas of a 6 cm × 4 cm rectangle and a parallelogram with base 6 cm and height 4 cm.

**11.** A parallelogram and a triangle both have base 10 cm and height 6 cm. Find both areas.

**12.** A parallelogram is cut along a diagonal into two identical triangles. Each triangle has an area of 15 $cm^2$. What is the area of the parallelogram?

**13.** A parallelogram has sides of 5 cm and 8 cm. Its height, measured to the 8 cm base, is 4 cm. Find its area.

**14.** Parallelogram tiles have base 20 cm and height 10 cm. How many tiles are needed to cover 1 $m^2$ (10,000 $cm^2$)?

**15.** A parallelogram has base 8 cm, sloping sides of 5 cm and height 4 cm. Find its perimeter and its area.

## 4. Before you hand it in

**Dividing a parallelogram's area by 2, like a triangle.**
Triangle: base × height ÷ 2. Parallelogram: base × height (no halving).

**Multiplying the base by the sloping side: 9 × 6 = 54 cm².**
Use the perpendicular height (at right angles to the base): 9 × 5 = 45 cm².

**Thinking a parallelogram has less area than the rectangle it is made from because it 'leans'.**
Cutting off the end triangle and moving it makes a rectangle with the same base and height, so the area is the same.