

Y5 Rectangle Properties

KS2 Y5 Maths · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

A rectangle has one side of 9 cm and another of 4 cm. What are the lengths of the other two sides?

Step 1 · Opposite sides of a rectangle are equal
the side opposite 9 cm is 9 cm

Step 2 · And opposite 4 cm
4 cm

Answer: 9 cm and 4 cm

Check: Perimeter = $9 + 4 + 9 + 4 = 26$ cm ✓

2. Now try one with the steps

A rectangle has a perimeter of 30 cm and a length of 11 cm. What is the width?

Step 1 · Length + width is half the perimeter

Step 2 · Width

Answer:

3. Practice

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

1. How many right angles does a rectangle have?

2. What do the angles of a rectangle add up to?

3. A rectangle has a long side of 12 cm. How long is the opposite side?

4. A rectangle is 7 m by 3 m. What is its perimeter?

5. A rectangle has a perimeter of 24 cm and a length of 8 cm. What is its width?

6. Is every square a rectangle? Write yes or no.

7. Is every rectangle a square? Write yes or no.

8. A diagonal splits a rectangle's corner into 60° and ?

9. One diagonal of a rectangle is 13 cm long. How long is the other diagonal?

10. A rectangle's length is 3 times its width. The width is 5 cm. What is the perimeter?

11. A square has a perimeter of 36 cm. How long is each side?

12. A rectangle has a perimeter of 26 m. Its length is 4 m more than its width. What are its length and width?

13. The diagonals of a rectangle cross at the centre. The distance from a corner to the centre is 6 cm. How long is a whole diagonal?

14. Three identical 5 cm by 2 cm rectangles are joined along their long sides to make a bigger rectangle. What is its perimeter?

4. Before you hand it in

Thinking a square is not a rectangle.

A rectangle is any quadrilateral with 4 right angles. A square has 4 right angles, so it is a special rectangle.

Finding the width from a perimeter of 30 cm and length 11 cm as $30 - 11 = 19$ cm.

Halve the perimeter first: $15 \text{ cm} = \text{length} + \text{width}$, so $\text{width} = 15 - 11 = 4 \text{ cm}$.

Thinking the diagonals of a rectangle cross at right angles.

In a rectangle the diagonals are equal and bisect each other, but they only cross at right angles when it is a square.