

Area of rectangles: finding the width or length

Tips for working out the area of a rectangular space

If you need to measure a large rectangular space, such as a room to be carpeted, you must make sure that you measure the length and width of the room carefully. If the measurements are not accurate then you could end up buying too much or too little carpet.

Always:

- estimate the area of the space
- measure accurately
- check you have used the same units of measurement
- work out the area

Finding the width or length

Since the area of a rectangle = length \times width, if we know the area of a rectangle and either the length or width, we can calculate the other side.

$$\text{length of a rectangle} = \text{area} \div \text{width}$$

or

$$\text{width of a rectangle} = \text{area} \div \text{length}$$

Example

The area of a rectangular room is 20 m^2 . Its length is 5 m. What is its width?

$$\text{width} = \text{area} \div \text{length} = 20 \div 5 = 4 \text{ m}$$