# Maths Mastery Calculate the Area of Parallelograms and Triangles 



## Area of a Right-Angled Triangle

Explain why the area of a right-angled triangle is half the product of the two sides adjacent to the right angle.


The area of the triangle is half the area of the rectangle as shown in the drawing. The area of the rectangle is bh where $b$ and $h$ are the lengths of the two sides. The area of the triangle is $\frac{1}{2} \times b h$.

## Area of a Triangle

Explain why the area of any triangle is half the product base (b) and the height of the triangle ( h ).


The triangle can be extended to make a rectangle. The rectangle is divided into 2 smaller rectangles. Half of each of the smaller rectangles is part of the triangle. So the area of the triangle is half of the area of the rectangle, which is $\frac{1}{2} \times$ bh.

## Area of a Parallelogram

Draw and cut out a rectangle.


Cut a corner from the rectangle to the adjacent corner, and put this across to the other end of the rectangle. This will make a parallelogram. Use this to write a formula for the area of a parallelogram.

Area $=b h$ where $b$ is the base and $h$ is the height.


