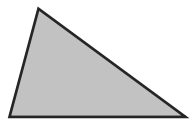


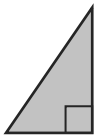
# Math Background

## Building on Concepts from Earlier Units

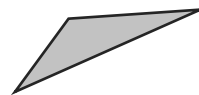
### Naming Triangles by Angles



acute triangle  
(three acute angles)



right triangle  
(one right angle)



obtuse triangle  
(one obtuse angle)

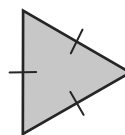
### Naming Triangles by Sides



scalene  
(no sides equal)

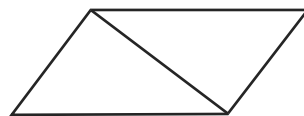
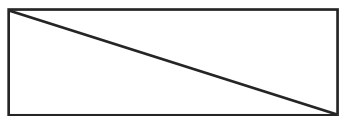


isosceles  
(two sides equal)

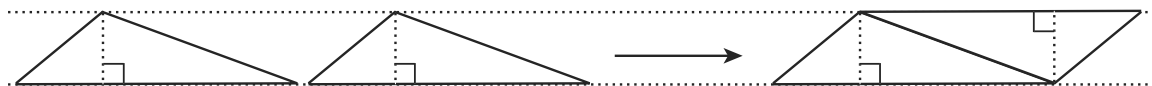


equilateral  
(all sides equal)

**Perimeter and Area of Rectangles and Parallelograms** The concept of the area of special quadrilaterals was developed in Unit A. This unit extends the concept to triangles, first by helping students to recognize that a diagonal always divides these quadrilaterals into two congruent triangles. Because they are congruent, they must have the same area.



Then students work with pairs of congruent triangles to see that they can be joined together to make a parallelogram.



The parallelogram's base and height are the same as the triangle's base and height. From this, students can conclude that the area of any triangle is half of the area of the parallelogram.

Knowing that for a parallelogram  $A = b \times h$ , they can see that the area of a triangle is  $\frac{1}{2} \times b \times h$ .