**Area of a Parallelogram and Triangle**

Any side of a parallelogram is a **base** of the parallelogram. The **height** of a parallelogram is the length of a line segment that joins parallel sides ***and*** is perpendicular to the base.



Recall that both a rectangle and a square are parallelograms.

Any parallelogram that is not a rectangle can be “cut” and rearranged to form a rectangle.



The parallelogram and the rectangle have the same area. The area of a parallelogram is equal to the area of a rectangle with the same height and base. To find the area of a parallelogram, multiply the base by the height.

Area of rectangle: Area of parallelogram:

***A = bh A = bh***

When we draw a diagonal in a parallelogram, we make two **congruent** triangles. Congruent triangles have the same area. The area of these two triangles is equal to the area of the parallelogram that contains them.



Area of parallelogram: Area of triangle:

***A = bh*** $A= \frac{bh}{2}$