Area and Perimeter of Complex Figures
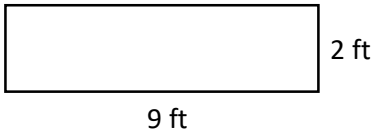
Over the next two days we are going to explore the concept of finding the Area and Perimeter of Complex Figures that have Rational Number dimensions. let's start with a review of finding the area and perimeter of rectangles and triangles.

Area of a Rectangle – To find the area of a rectangle. multiply the length or base times the width or height.

2 ft

9 ft

To find the area of this rectangle you would multiply the length (or base) of 9 ft by the width (or height) of 2 ft for an area of 18 ft^2 which we would read as *eighteen square feet*. (Area is always shown in square units.)

Area of a Triangle – To find the area of triangle, multiply the base times the height and then divide that answer by 2.

8 cm

6 cm
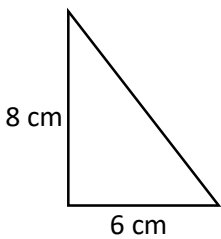
To find the area of this triangle you would multiply the base of 6 cm by the height of 8 cm and then divide that product by 2. $\dfrac{6 \cdot 8}{2} = \dfrac{48}{2} = 24$

The area is 24 cm^2 which we would read as *twenty-four square centimeters*. (Area is always shown in square units.)

Perimeter of Rectangles and Triangles – To find the perimeter of any polygon (rectangles and triangles are types of polygons), add the lengths of all the sides.

To find the perimeter of the rectangle below, you would add 2 + 9 + 2 + 9 = 22. The perimeter of the rectangle is 22 ft. (Perimeter is shown in linear units so you don't need the squared symbol (the little ^{2}) after the unit of measurement.

2 ft

9 ft
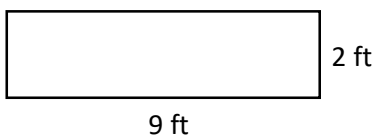
To find the perimeter of the triangle on the right, you would add 8 + 6 + 10 = 24. The perimeter of the triangle is 24 cm.

8 cm

10 cm

6 cm