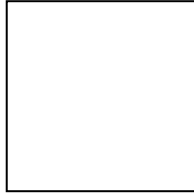


Area Rectangle Sample Lesson

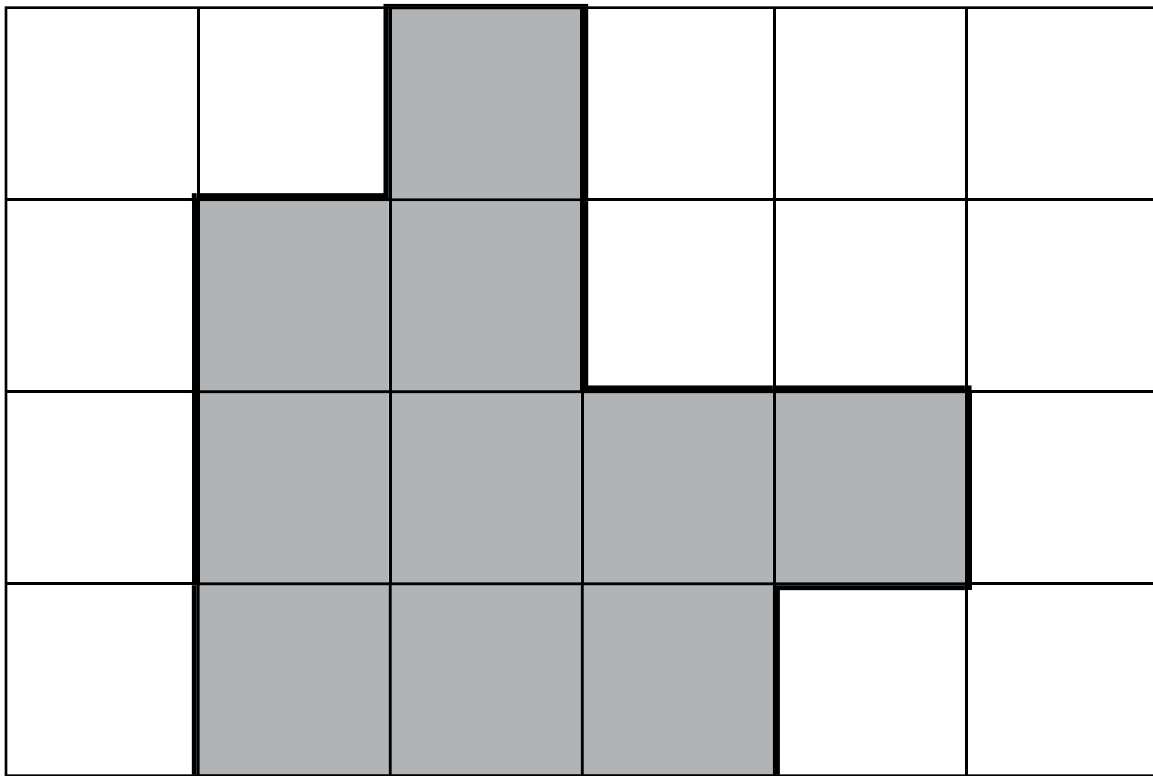
- Lesson on Square Inches

A. A square inch is a square whose sides are each 1 inch long.

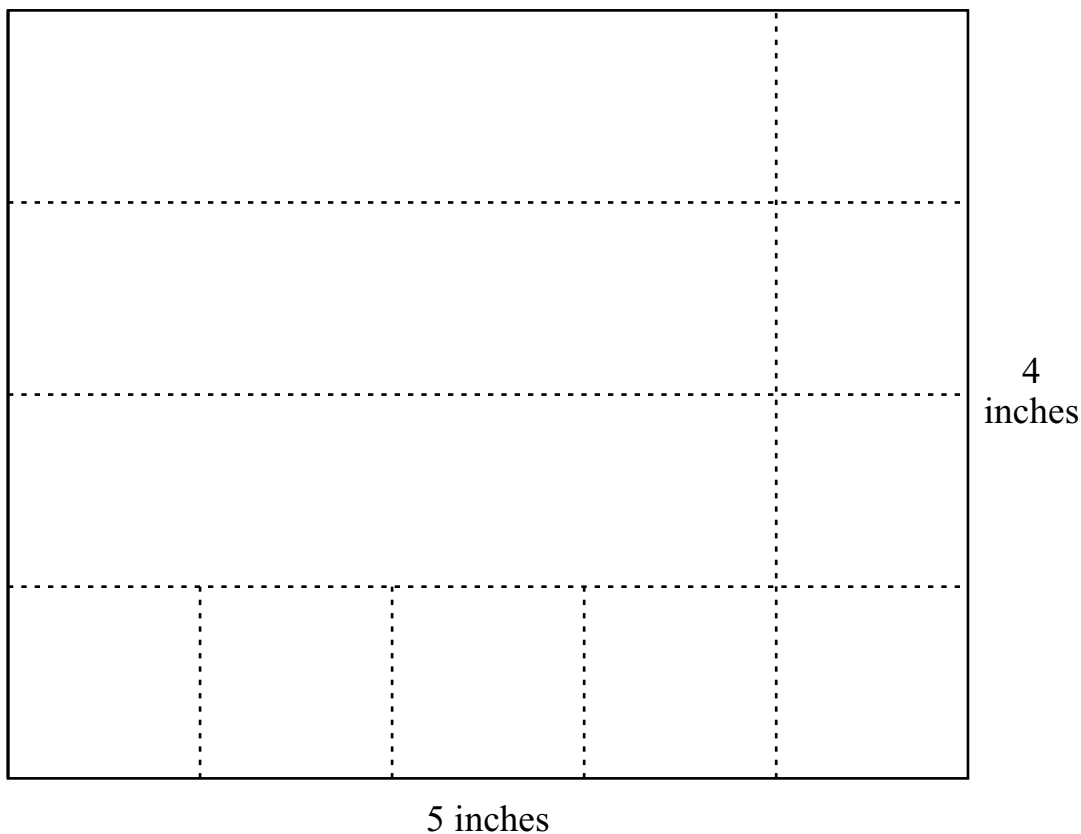
It looks like this.



This grid is made up of square inches. We measure the area of the figure by counting the number of squares inside of it. The area of this figure is 10 square inches.



B. For a rectangle, we can calculate its area in square inches just as we did for square centimeters.



We can see that since the bottom of this rectangle is 5 inches long, 5 square inches will fit in a row at the bottom. And since the height of the rectangle is 4 inches, we can see that 4 rows will cover the whole figure.

So we don't have to count the square inches to find the area—we find it by multiplying:

$$4 \text{ rows} \times 5 \text{ square inches per row} = 20 \text{ square inches}$$

It is obvious that all of this is the same whether we use centimeters or inches (or any other unit of length) to measure the sides of a rectangle. Its area will be the number of square units that we get when we multiply the number of units in the length times the number of the same kind of units in the width.

This fact is often written as a “formula” or rule:

$$\begin{array}{l} \text{Area of a rectangle} \\ \text{in square units} \end{array} = \begin{array}{l} \text{number of} \\ \text{units in } \underline{\text{Length}} \end{array} \times \begin{array}{l} \text{number of} \\ \text{units in } \underline{\text{Width}} \end{array}$$

$$\text{or simply, } A = L \times W.$$

(But unless you understand what the formula means, it won't be helpful. In particular, you must understand that it doesn't matter which side is called the length.)