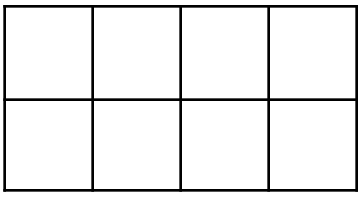
Parent Information: Area & Perimeter (4th Grade)

Fourth grade students apply the skills they learned in third grade to solve problems related to area and perimeter of rectangles.

Area: The number of square units it takes to cover a flat surface.

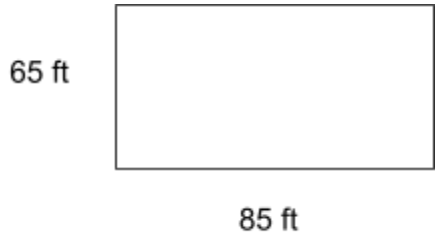


The area of this rectangle is 8 square units.

Students can count the squares covering the rectangle to find the area. They can also multiply the number of units long times the number of units wide to find the area. (4 x 2 = 8 square units)

Students may have word problems without pictures. Students need to draw their own representations of the problem to solve.

The practice field is 85 feet long and 65 feet wide. What is the area of the practice field?



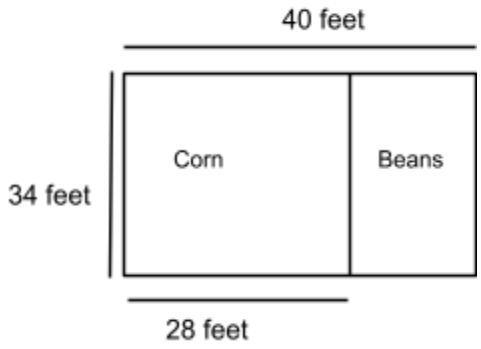
The area of the practice field is 5,525 square feet.

Word problems may be multi-step.

> *Mauro has a piece of canvas that is 18 inches long and 24 inches wide. He cut the canvas in half for an art project. What is the area of one of the halves of the canvas?*

Students need to be able to find the area of a part of a rectangle.

> *Catrina planted a garden with beans and corn. The diagram shows the sections of her garden. What is the area of the section where Catrina planted beans?*



Perimeter: The distance around a two-dimensional shape

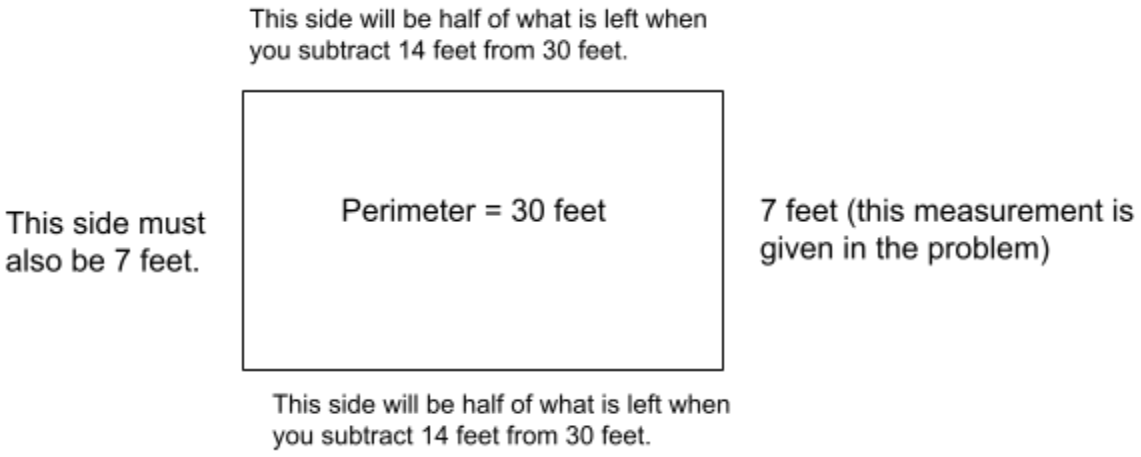
Students need to find the perimeter of a shape when given the side measurements. They need to identify equivalent sides when the length of every side is not given.

> *Leah has a rectangular quilt that is 48 inches long and 36 inches wide. She sews a piece of ribbon around the perimeter of the quilt. How long does the piece of ribbon need to be?*

Students also identify dimensions that would equal a specific perimeter.

> *Joel put a fence around his rectangular dog pen. The fence has a perimeter of 44 feet. What could be the dimensions of the dog pen?*
>
> Students will then have a list of models with dimensions, and they will choose the model or models with a perimeter of 44 feet.

Students may also be given the total perimeter of a polygon and asked to find the measurement of a given side.

> *Victor built a fence around his rectangular patio. The perimeter of his patio is 30 feet. The width of this patio is 7 feet. What is the length of his patio in feet?*

It is very helpful for students to draw a model of the problem to solve. A model would help students see that there are two sides that are each 7 feet long. That accounts for 14 feet of the 30 feet of perimeter. The model would also help students see that the remaining 16 feet of perimeter must be divided equally between two sides, so each of those sides is 8 feet long. Therefore, the length of the patio is 8 feet.