Lesson 10: Solve Area Problems

- Let's solve area problems.

Warm-up: Number Talk: One More Group

Find the value of each expression mentally.
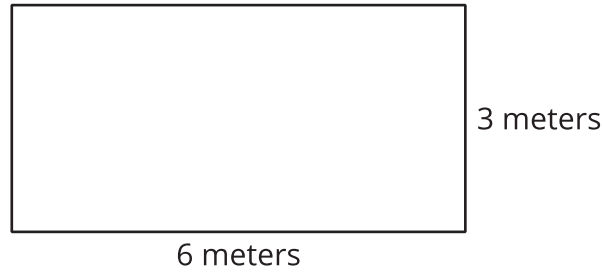
- 5×2

- 6×2

- 5×6

- 6×6

10.1: Paint a Wall

Noah is painting a wall in a community garden. The wall is shaped like a rectangle. A diagram of the wall is shown here.

3 meters

6 meters

Paint is sold in 3 different sizes:

- A small container will cover 3 square meters.

- A medium container will cover 10 square meters.

- A large container will cover 40 square meters.

What should Noah buy? Explain your reasoning.

_____

_____

_____

_____

10.2: Create a Garden

1. Elena is planning how to use her rectangular space in the community garden. She needs a space that is at least 20 square feet to fit her plants. She has enough soil for a garden that is 30 square feet. The space she has available has to be 3 feet on one side.

   What are the possible sizes for her garden?

   Create a poster to show your thinking. Organize it so it can be followed by others.

2. As you look at the posters with your group:

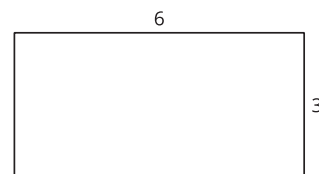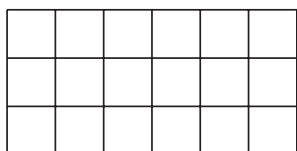a. Describe how another group solved the problem in a different way than your group did.

_____

_____

_____

_____

b. Write three things you saw that helped you understand how other students solved the problem.
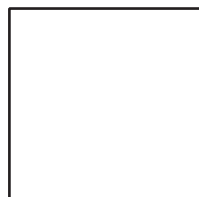
_____

_____

_____

_____

Section Summary

Section Summary
In this section, we learned how area is related to multiplication. We multiplied the side lengths of a rectangle to find its area.

$$6 \times 3 = 18$$

We also learned about how different square units are useful for measuring area in different situations and solved problems involving area.

square inch

square meter