

## **Lesson 10: Solve Area Problems**

• Let's solve area problems.

# Warm-up: Number Talk: One More Group

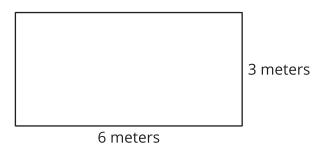
Find the value of each expression mentally.

- 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.



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.



| 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. |
|    |  |
|    |  |
|    |  |

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

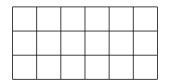


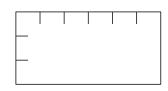
#### **Section Summary**

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

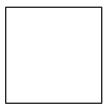
$$6 \times 3 = 18$$





| 6 |  |   |  |
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|   |  | 1 |  |
|   |  | ٥ |  |
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|   |  |   |  |

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