Unit 1, Lesson 1

# Multiples of a Number

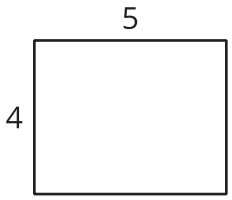
Let's build some rectangles.

Warm-up

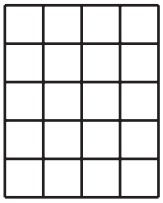
## Which Three Go Together: All Kinds of Area

Which 3 go together?

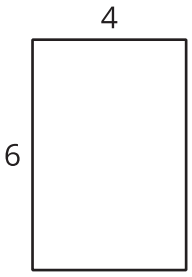
**A**



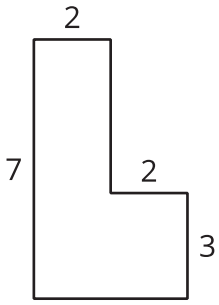

**B**



**C**



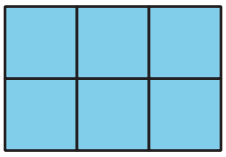

**D**



Activity 1

## Build Rectangles and Find Area

1. Build 5 different rectangles with each of the given widths. Record the area of each rectangle in the table.



| | area of rectangle | | | | |
|---|---|---|---|---|---|
| 2 tiles wide | | | | | |
| 3 tiles wide | | | | | |
| 4 tiles wide | | | | | |

2. Discuss with a partner what you notice about the areas in each row of the table.
3. Predict the area of another rectangle that has each width. Explain your reasoning.
   - 2 tiles: _____
   - 3 tiles: _____
   - 4 tiles: _____

Activity 2

## What Areas Can You Build?

1. Elena builds rectangles with a width of 3 units and an area of 30 square units or less.

   a. Build the rectangles Elena could make and draw the rectangles on grid paper. Label the area and the side lengths of each rectangle.

   b. What is the area of each rectangle you built?

   c. What do you notice about the areas?

2. Why is 28 square units not a possible area for a rectangle with a width of 3 units?

3. Elena decides that the area of the rectangle can be more than 30 square units. Find 2 other areas it could have. Explain or show your reasoning.

4. What is an area that is *not* possible for a rectangle with a width of 3 units? Explain or show your reasoning.