



# Multiples of a Number

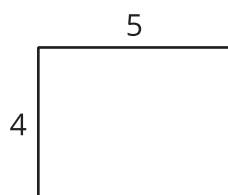
Let's build some rectangles.

## Warm-up

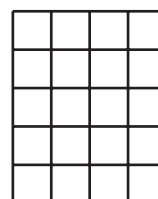
### Which Three Go Together: All Kinds of Area

Which 3 go together?

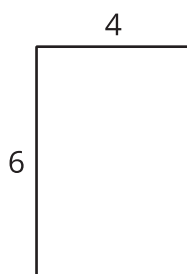
**A**



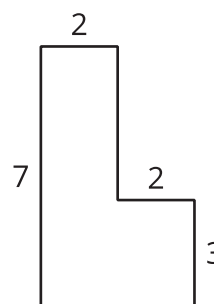
**B**



**C**



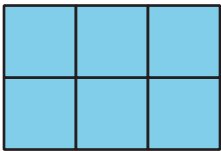
**D**



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.

