Unit 2, Lesson 9

Relate Area to Multiplication

Let's explore the area of rectangles with one side length that is a unit fraction.

Warm-up

Which Three Go Together: Area

Which 3 go together?

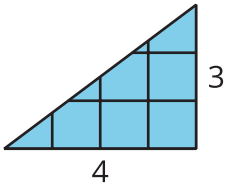
A



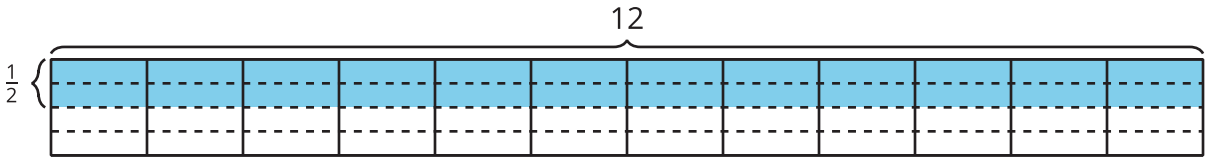
B



C



D

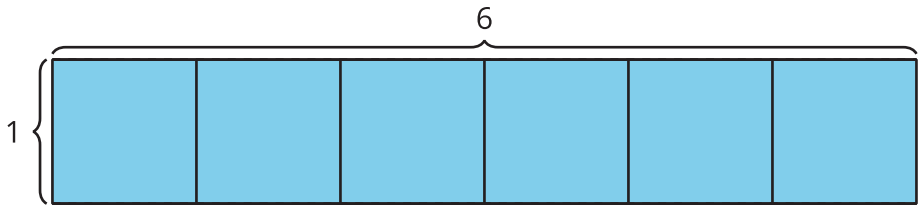


Activity 1

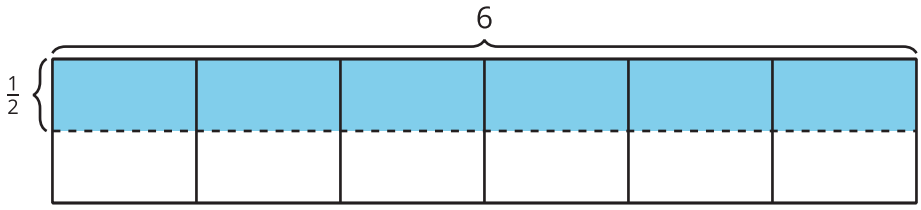
Find the Area

Find the area of the shaded region in square units. Explain or show your reasoning.

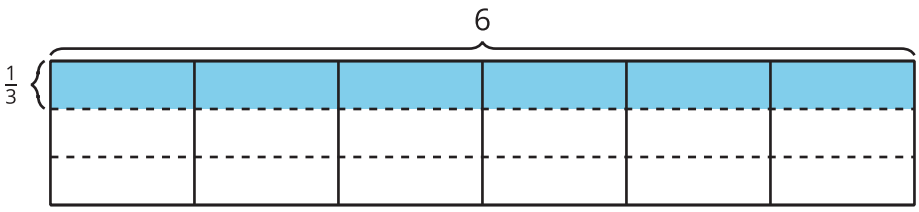
1.



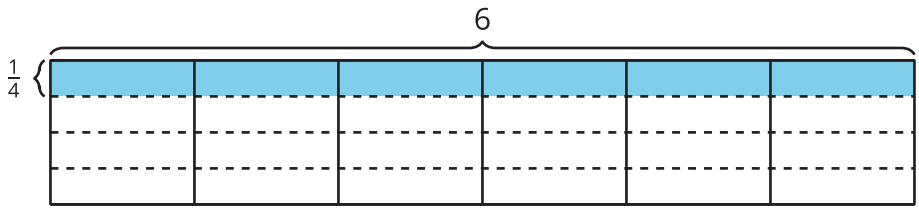
2.



3.



4.



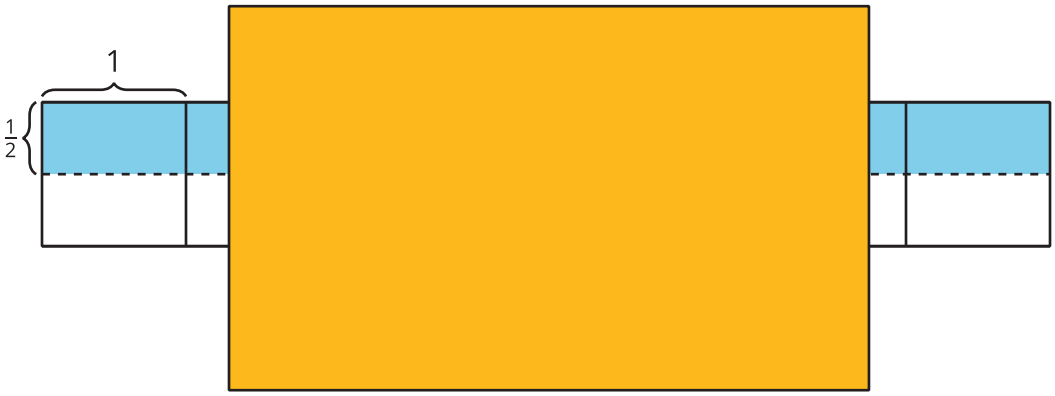
Activity 2

Draw Rectangles

1. Represent each rectangle on grid paper:
   - $\frac{1}{2}$ unit by 1 unit
   - $\frac{1}{2}$ unit by 2 units
   - $\frac{1}{2}$ unit by 3 units
   - $\frac{1}{2}$ unit by 4 units

2. Find the area of each rectangle that you drew.

3. What information do you need in order to find the area of the shaded region?



4. What might the area of the shaded region be? Explain or show your reasoning.