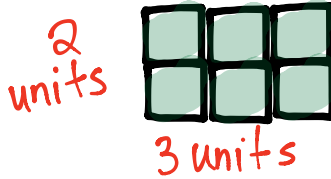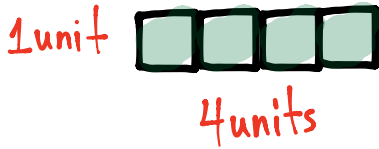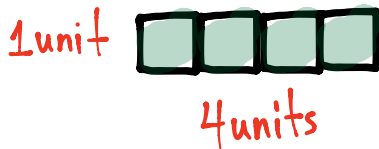Name _____    Date _____
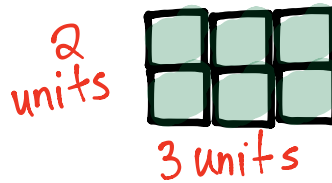
1.  Cut out the unit squares at the bottom of the page.  Then, use them to make as many rectangles as you can with a perimeter of 10 units.

    a.  Estimate to draw your rectangles below.  Label the side lengths of each rectangle.

1unit  [squares] 4units

2 units [squares] 3 units

    b.  Find the areas of the rectangles in Part (a) above.

1unit [squares] 4units

Area: 4 square units

2 units [squares] 3 units

Area: 6 square units

✂ ------------------------------------------------------------------------------------------------------------------------------

[row of 10 unit squares]

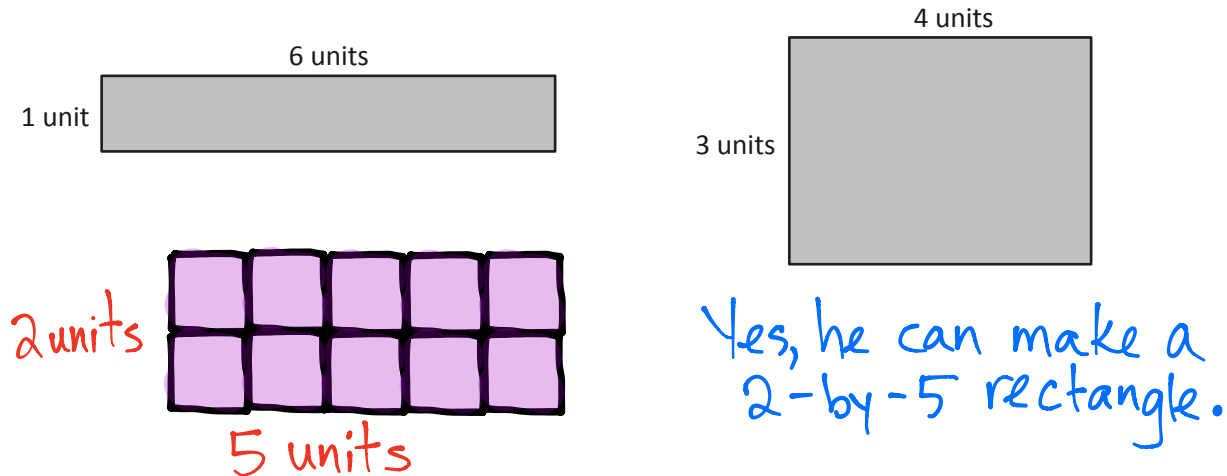**Lesson 20:**  Construct rectangles with a given perimeter using unit squares and determine their areas.

96

2.  Gino uses unit square tiles to make rectangles with a perimeter of 14 units.  He draws his rectangles as
    shown below.  Using square unit tiles, can Gino make another rectangle that has a perimeter of 14 units?
    Explain your answer.

4 units

6 units

1 unit

3 units

2 units

5 units

Yes, he can make a
2-by-5 rectangle.

3.  Katie draws a square that has a perimeter of 20 centimeters.

    a.  Estimate to draw Katie's square below.  Label the length and width of the square.

    5 units

    b.  Find the area of Katie's square.

    5 units

    The area would be 25 square units.

    c.  Estimate to draw a different rectangle that has the same perimeter as Katie's square.

    Answers will vary.
    Here is one possibility.

    4 units

    6 units

    d.  Which shape has a greater area, Katie's square or your rectangle?

    Katie's shape has a greater area.

EUREKA
MATH™

Lesson 20:    Construct rectangles with a given perimeter using unit squares and
              determine their areas.

© 2014 Common Core, Inc. All rights reserved. commoncore.org

97