

## Area of Complex Figures

### **Standards:**

3MG 1.2: Estimate or determine the area and volume of solid figures by covering them with squares or by counting the number of cubes that would fill them.

4MG 1.4: Understand and use formulas to solve problems involving perimeters and areas of rectangles and squares. Use those formulas to find the areas of more complex figures by dividing the figures into basic shapes.

### **Vocabulary:**

Area: The number of *square units* needed to cover the inside of a region or plane figure without any overlap. (Macmillan McGraw-Hill Glossary)

Rectangle: a parallelogram having four right angles.

Parallelogram: a quadrilateral having both pairs of opposite sides parallel to each other.

Complex Figure

GO BACK and emphasize that a rectangle is a quadrilateral having both pairs of opposite sides parallel to each other. Label each side of the rectangles (not shown in diagram but important for developing the concept of a complex figure).

**Choral Response:** If this side of the rectangle is 6 units (point to it), then what is this side? [6 units]. If this side of the rectangle is 4 units (point to it), then what is this side? [4 units]

**Student Talk: (Think, Pair, Share)**

Ask students to create 2 different sized rectangles

*Post completed papers around the classroom as others continue to work. It will encourage other groups to finish their work and lower the fear of asking what to do “next”. Students will feel more confident if they see correct completed work.*

**Find the Area of a Complex Figure (“garden”) with missing lengths:**

In student notebooks, ask students to draw the complex figure (garden) below. Label the sides

**You-Try 1: (work in pairs)**

Find the area of the complex figure:

**You-Try 2: (individual work)**

Find the area of the complex figure:

# Warm-Up

! CST: Grade 3 MG 1.2

Review: Grade 3 and 4

**A rectangle is 6 inches long and 4 inches wide. What is the area of the rectangle?**

**Find the perimeter of the square.**

- A** 24 square inches
- B** 30 square inches
- C** 74 square inches
- D** 120 square inches