

# Area Shape Split

*Split rectangles, then add areas.*

**GRADE 3 • TEKS 3.6.D**

**3.6.D** "decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area; and"

NAME \_\_\_\_\_

DATE \_\_\_\_\_

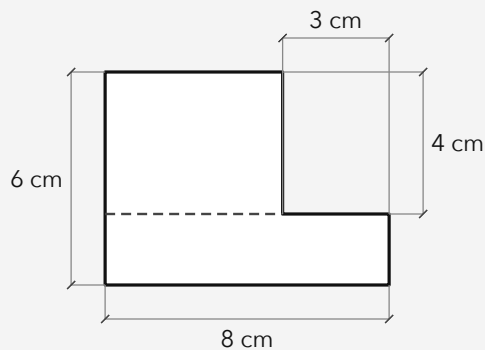
**You will need:** Pencil; Ruler

**SPLIT AND ADD**

Draw lines to split each composite figure into rectangles that do not overlap. Find each rectangle's area, then add. Write an addition equation with your answer. Use the bold outline for the shape; thin outside lines mark lengths.

**WORKED EXAMPLE**

Find the area of the figure.

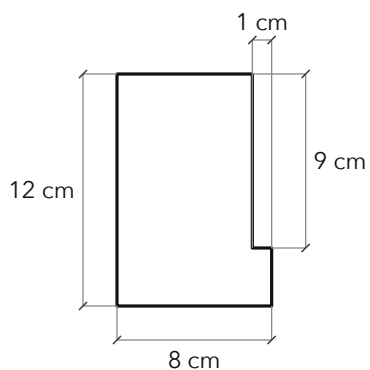


1. The dashed line splits the figure into an 8 cm by 2 cm rectangle and a 5 cm by 4 cm rectangle.
2. Find the areas:  $8 \times 2 = 16$  and  $5 \times 4 = 20$ .
3. Add:  $16 + 20 = 36$  square centimeters.

**Answer: 36 square centimeters**

**PRACTICE** 4 problems

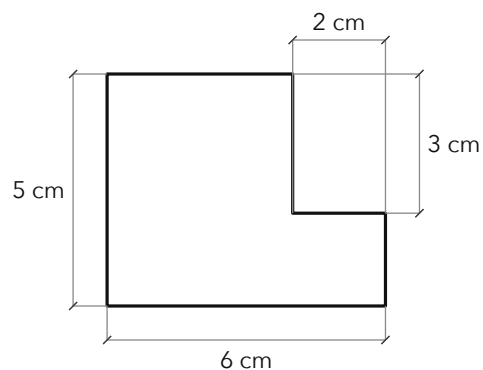
- 1** Draw a line to split this shape into two rectangles. Write an addition equation and its total area.



**ANSWER** \_\_\_\_\_

\_\_\_\_\_

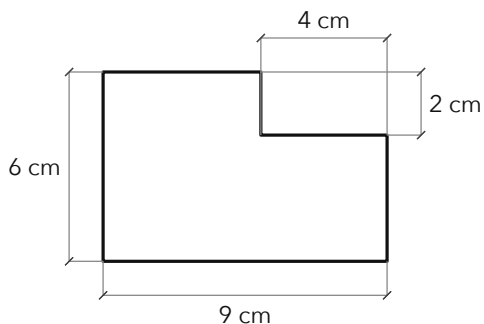
- 2** Draw a line to split this shape into two rectangles. Write an addition equation and its total area.



**ANSWER** \_\_\_\_\_

\_\_\_\_\_

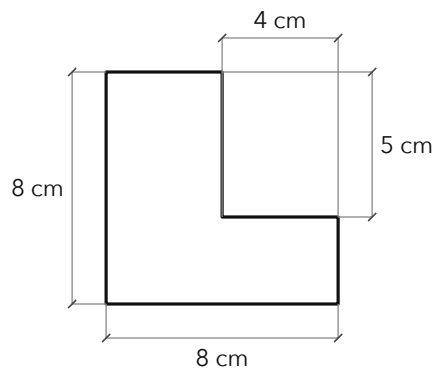
- 3** Draw a line to split this shape into two rectangles. Write an addition equation and its total area.



**ANSWER** \_\_\_\_\_

\_\_\_\_\_

- 4** Draw a line to split this shape into two rectangles. Write an addition equation and its total area.

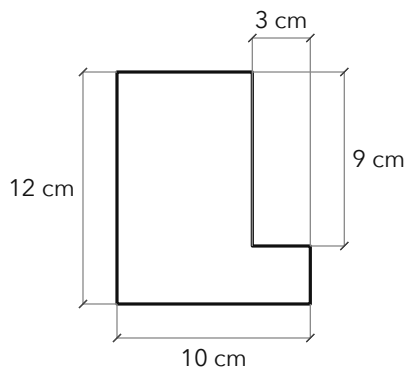


**ANSWER** \_\_\_\_\_

\_\_\_\_\_

**APPLY IT** Show your work**1**

The garden model needs green paper. Split the figure into rectangles. How many square centimeters of paper are needed?

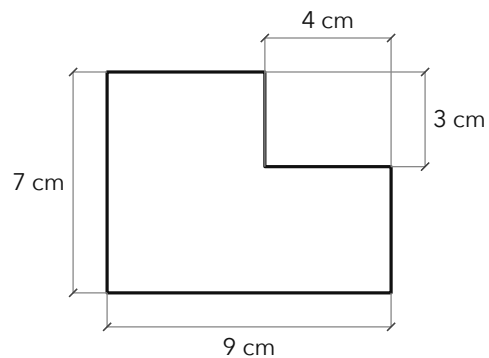
**CALCULATION AND ANSWER**

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**2**

The poster shown is covered with stickers. Draw a partition line and find the area of the poster.

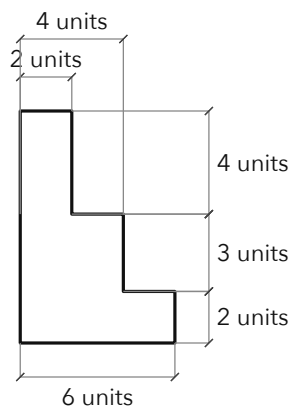
**CALCULATION AND ANSWER**

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**CHALLENGE** One step up

Draw two lines to split the figure into three rectangles. Find its area and show an addition equation.

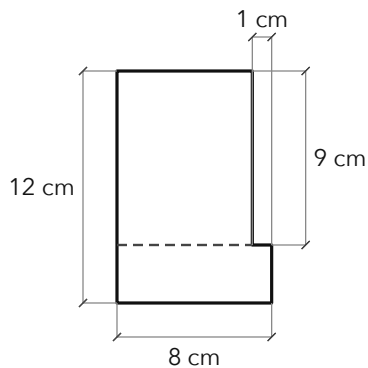


WORK SPACE AND ANSWER

**PRACTICE 1**

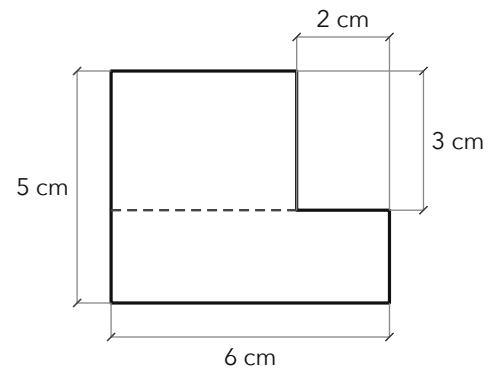
Draw a line to split this shape into two rectangles. Write an addition equation and its total area.

$$8 \times 3 + 7 \times 9 = 87 \text{ square centimeters}$$

**PRACTICE 2**

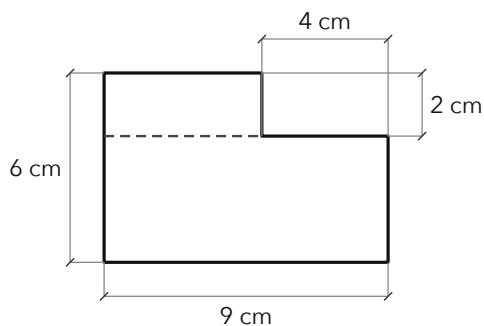
Draw a line to split this shape into two rectangles. Write an addition equation and its total area.

$$6 \times 2 + 4 \times 3 = 24 \text{ square centimeters}$$

**PRACTICE 3**

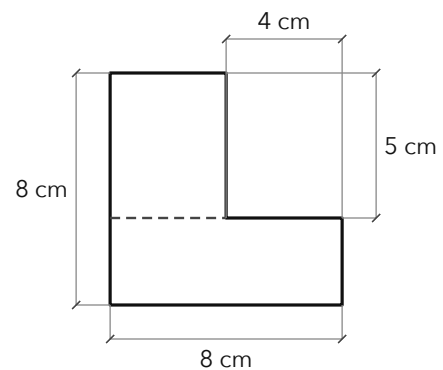
Draw a line to split this shape into two rectangles. Write an addition equation and its total area.

$$9 \times 4 + 5 \times 2 = 46 \text{ square centimeters}$$

**PRACTICE 4**

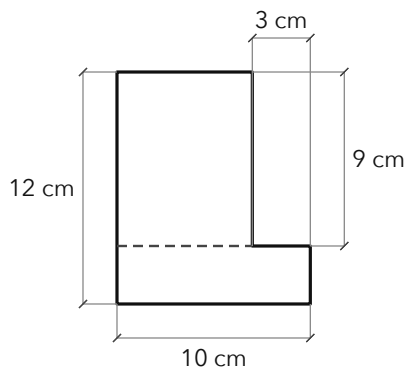
Draw a line to split this shape into two rectangles. Write an addition equation and its total area.

$$8 \times 3 + 4 \times 5 = 44 \text{ square centimeters}$$



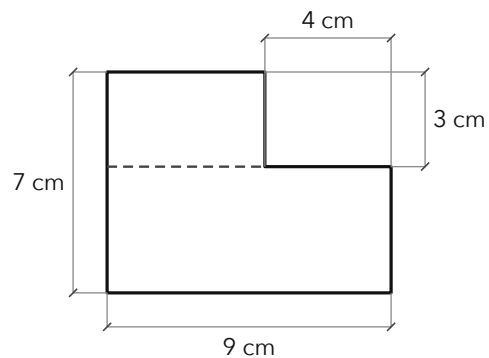
### APPLY IT 1

**93 square centimeters** Split the garden into a 10 cm by 3 cm rectangle and a 7 cm by 9 cm rectangle. Add 30 and 63.



### APPLY IT 2

**51 square centimeters** Use a 9 cm by 4 cm rectangle and a 5 cm by 3 cm rectangle:  $36 + 15 = 51$ .



### CHALLENGE

**$6 \times 2 + 4 \times 3 + 2 \times 4 = 32$  square units.**

Accept any correct non-overlapping rectangle decomposition. Accept equivalent addition equations and correct area units. Dashed lines in the teacher diagrams show one valid partition. Accept other valid non-overlapping partitions with correct calculations. Outside measurement lines show horizontal or vertical distances; they are not extra sides of the shape.

