LESSON MAKER PRO

Shape Splitters

Find the area of shapes made from rectangles.

GRADE 3 · 3.GR.C.7.c

3.GR.C.7.c "Determine the area of composite rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas."

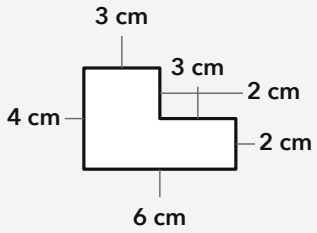
NAME _____ DATE _____

SPLIT AND ADD

Split a step-shaped figure into rectangles that do not overlap. Find each rectangle's area, then add the areas.

WORKED EXAMPLE

Find the area of the figure.



1. Split across the inside corner.
2. Bottom rectangle: 6 × 2 = 12 square cm.
3. Top rectangle: 3 × 2 = 6 square cm.
4. Add: 12 + 6 = 18 square cm.

Answer: 18 square cm

PRACTICE 4 problems

1 Find the total area: 5 × 7 + 8 × 7 = ___ square units.

ANSWER _____

2 Find the total area: 9 × 5 + 7 × 8 = ___ square units.

ANSWER _____

3 Find the total area: 10 × 7 + 5 × 9 = ___ square units.

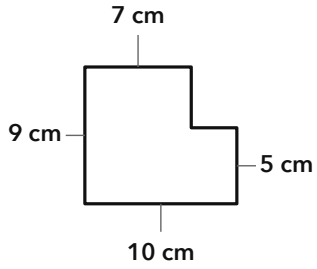
ANSWER _____

4 Find the total area: 8 × 8 + 9 × 7 = ___ square units.

ANSWER _____

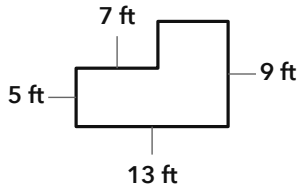
APPLY IT Show your work

1 A game mat has the shape shown. What is its area?



ANSWER _____

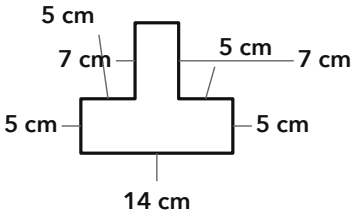
2 A play area has the shape shown. What is its area?



ANSWER _____

CHALLENGE One step up

Find the area. Show two different ways to split the figure into rectangles.



WORK SPACE AND ANSWER

ANSWER KEY

Shape Splitters

GRADE 3 · 3.GR.C.7.c

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Find the total area: 5 × 7 + 8 × 7 = ___ square units.	**91 square units**
2	Find the total area: 9 × 5 + 7 × 8 = ___ square units.	**101 square units**
3	Find the total area: 10 × 7 + 5 × 9 = ___ square units.	**115 square units**
4	Find the total area: 8 × 8 + 9 × 7 = ___ square units.	**127 square units**

PART 2 · APPLY IT

1. **78 square cm** Split the mat into a 10 cm by 5 cm rectangle and a 7 cm by 4 cm rectangle. Add 50 + 28 = 78 square cm.
2. **89 square ft** The bottom rectangle is 13 ft by 5 ft. The upper rectangle is 6 ft by 4 ft, so the total is 65 + 24 = 89 square ft.

CHALLENGE

98 square cm. One split gives 14 × 5 + 4 × 7 = 98. Another gives 5 × 5 + 4 × 12 + 5 × 5 = 98.

Accept any non-overlapping rectangle split with the correct total area. In the challenge, the two splits must be different.