

Name _____

Problem Solving • Area of Rectangles

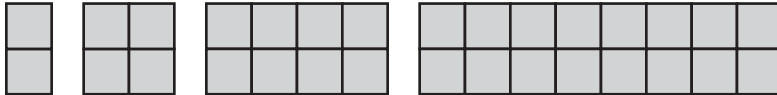


COMMON CORE STANDARD MACC.3.MD.3.7b

Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

Use the information for 1–3.

An artist makes rectangular murals in different sizes. Below are the available sizes. Each unit square is 1 square meter.



A

B

C

D

- Complete the table to find the area of each mural.

Mural	Length (in meters)	Width (in meters)	Area (in square meters)
A	2	1	2
B	2	2	4
C	2		
D	2		

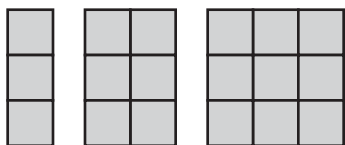
- Find and describe a pattern of how the length changes and how the width changes for murals A through D.

- How do the areas of the murals change when the width changes?

- Dan built a deck that is 5 feet long and 5 feet wide. He built another deck that is 5 feet long and 7 feet wide. He built a third deck that is 5 feet long and 9 feet wide. How do the areas change?

Lesson Check (MACC.3.MD.3.7b)

1. Lauren drew the designs below. Each unit square is 1 square centimeter. If the pattern continues, what will be the area of the fourth shape?



- (A) 10 square centimeters
- (B) 12 square centimeters
- (C) 14 square centimeters
- (D) 16 square centimeters

2. Henry built one garden that is 3 feet wide and 3 feet long. He also built a garden that is 3 feet wide and 6 feet long, and a garden that is 3 feet wide and 9 feet long. How do the areas change?

- (A) The areas do not change.
- (B) The areas double.
- (C) The areas increase by 3 square feet.
- (D) The areas increase by 9 square feet.

Spiral Review (MACC.3.OA.1.3, MACC.3.NBT.1.3, MACC.3.NF.1.1, MACC.3.MD.3.5b, MACC.3.MD.3.6)

3. Joe, Jim, and Jack share 27 football cards equally. How many cards does each boy get? (Lesson 7.4)

- (A) 7
- (B) 8
- (C) 9
- (D) 10

4. Nita uses $\frac{1}{3}$ of a carton of 12 eggs. How many eggs does she use? (Lesson 8.7)



- (A) 3
- (B) 4
- (C) 6
- (D) 9

5. Brenda made 8 necklaces. Each necklace has 10 large beads. How many large beads did Brenda use to make the necklaces? (Lesson 5.4)

- (A) 80
- (B) 85
- (C) 90
- (D) 100

6. Neal is tiling his kitchen floor. Each square tile is 1 square foot. Neal uses 6 rows of tiles with 9 tiles in each row. What is the area of the floor? (Lesson 11.6)

- (A) 15 square feet
- (B) 52 square feet
- (C) 54 square feet
- (D) 57 square feet