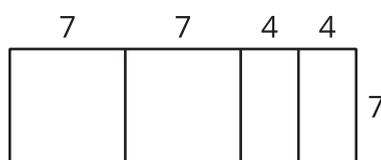


Lesson 3: Lots of Rectangles

- Let's express the areas of some rectangles.

3.1: Math Talk: Many Ways to Area

A rectangle is partitioned into smaller rectangles. Explain why each of these expressions represents the area of the entire rectangle.



$$7(7 + 7 + 4 + 4)$$

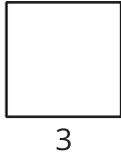
$$7(2 \cdot 7 + 2 \cdot 4)$$

$$7^2 + 7^2 + 4 \cdot 7 + 4 \cdot 7$$

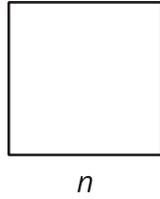
$$2(7^2) + 2(4 \cdot 7)$$

3.2: Representing Areas

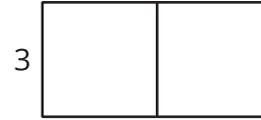
A



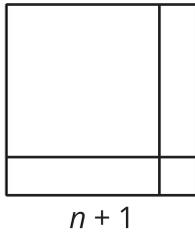
B



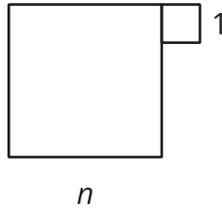
C



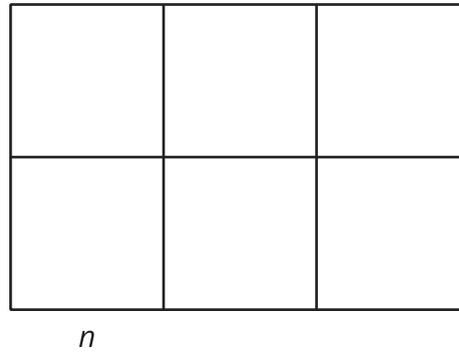
D



E



F

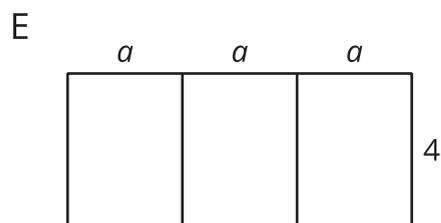
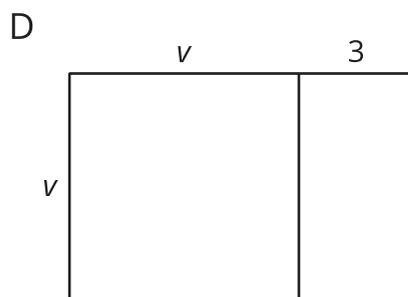
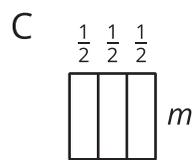
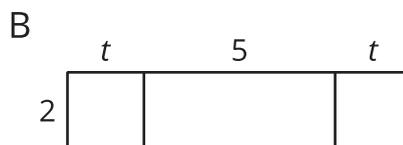
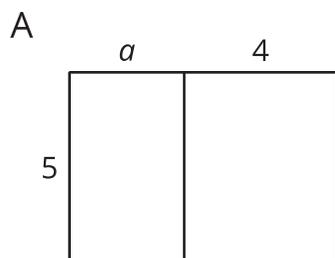


Match each figure with one or more expressions for its area. Every shape that looks like a square is a square.

- $2 \cdot 3^2$
- $6n^2$
- $n^2 + 1^2$
- 3^2
- $(n + 1)(n + 1)$
- $(2n)(3n)$
- $(n + 1)^2$
- $3(3 + 3)$
- n^2
- $(n + n)(n + n + n)$
- $3^2 + 3^2$

3.3: Areas of Rectangles

Complete the table with the length, width, and area of each rectangle.



rectangle	length (units)	width (units)	area (square units)
A	$a + 4$		
B		2	
C			
D			
E			