## 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.



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

$7(2⋅7+2⋅4)$

$7^{2}+7^{2}+4⋅7+4⋅7$

$2(7^{2})+2(4⋅7)$

### 3.2: Representing Areas



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

* $2⋅3^{2}$
* $6n^{2}$
* $n^{2}+1^{2}$
* $3^{2}$
* $(n+1)(n+1)$
* $(2n)(3n)$
* $(n+1)^{2}$
* $3(3+3)$
* $n^{2}$
* $(n+n)(n+n+n)$
* $3^{2}+3^{2}$

### 3.3: Areas of Rectangles

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



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



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