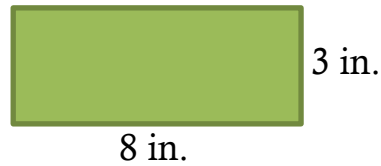


# Area

The amount of two-dimensional space in a bounded region.



# Area model

A model for multiplication that related rectangular arrays to area.

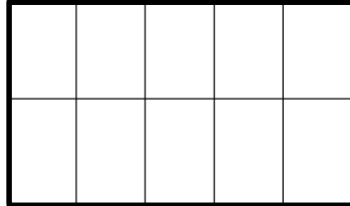


# Square unit

A unit of area- specifically square centimeters, inches, feet, meters.

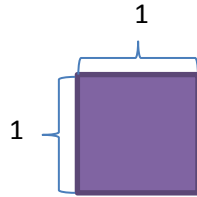
# Tile

To cover a region without gaps or overlaps.



# Unit square

*Example: a given length unit. it is a 1 unit by 1 unit square.*



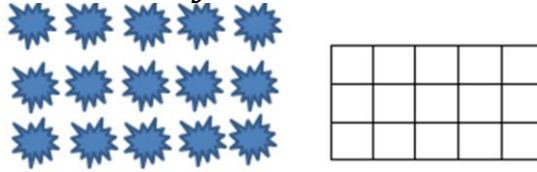
# Whole number

An integer, i.e. a number without fractions.

*Example: 18*

# Array

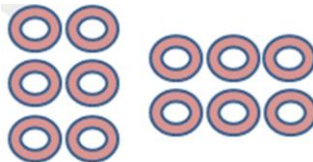
Arrangement of objects in rows and columns.



$$3 \times 5 = 15$$

# Commutative Property

Rotate a rectangular array 90 degrees to demonstrate that factors in a multiplication sentence can switch places.



$$3 \times 2 = 6 \quad 2 \times 3 = 6$$

# Distribute

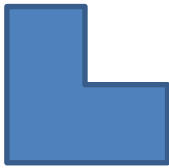
Example:  $12 \times 3 = (10 \times 3) + (2 \times 3)$ . The 3 is the multiplier for each part of the decomposition.

	10	+	2	$30 + 6 = 36$
3	30	6		

$$3(10 + 2)$$
$$(3 \times 10) + (3 \times 2)$$

# Geometric Shape

A two-dimensional object with a specific outline or form.



# Length

The straight line distance between two points.



# Multiplication

An operation showing how many times a number is added to itself.



$$4 \times 6 = 24$$

# Rows and Columns

In reference to rectangular arrays.

