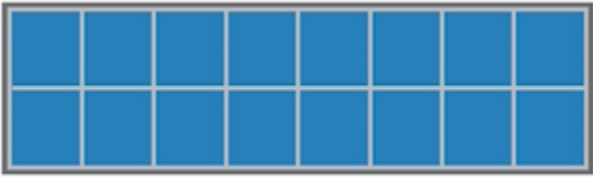
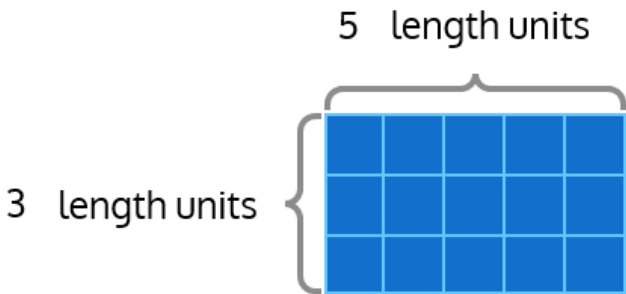


3rd Grade Mission 4 Notes

Area: the amount of **flat space** a shape takes up.



Different rectangles, but they all have the SAME AREA.



Area: 15 square units

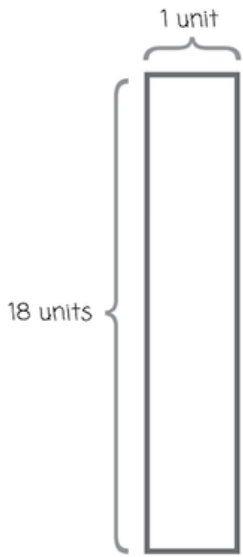
Area = length x width



Even though they both have 6 tiles, they DO NOT have the same area, because they are using different tools of measurement.

Area = 6 square centimeters

Area = 6 square inches



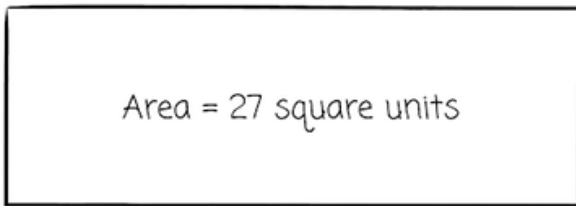
Length x width = area

If you multiply the side lengths together, the product is the same as the area.

Area: $18 \text{ units} \times 1 \text{ unit} = 18 \text{ square units}$

? units

3 units



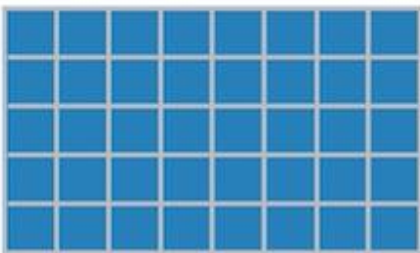
To find the length of the unknown side, divide the area by the length of the side known.

$$27 \div 3 = 9$$

Side length \times ? = Area
 Area \div side length = ?

8 units

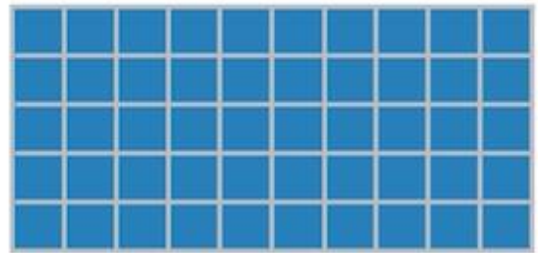
5 units



$5 \times 8 = 40 \text{ sq. units}$

10 units

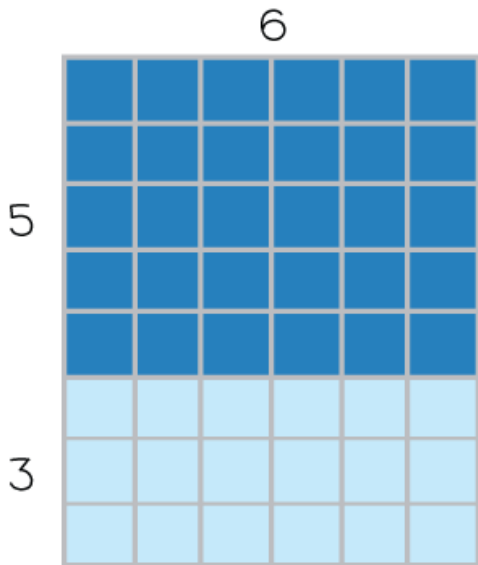
5 units



$5 \times 10 = 50 \text{ sq. units}$

$40 + 50 = 90 \text{ square units}$

The total area is 90 square units.



5×6 Find area for the shaded part of the rectangle

3×6 Find area for the unshaded part of the rectangle

Finding the area for the larger rectangle:

$$\text{Area} = (5 \times 6) + (3 \times 6)$$

OR

$$= 30 + 18 \quad \text{then add the 2}$$

$$= 48 \quad \text{areas together}$$

$$(5 + 3) \times 6 = 8 \times 6 = 48 \text{ square units}$$

Add the two lengths of the longer side, then multiply by the top length.

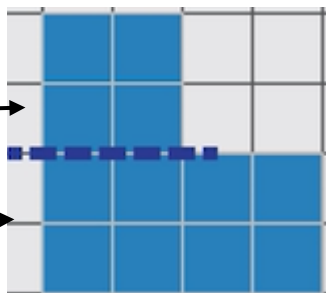
Create a new expression with 4 on its own.

$$3 \times (3 \times \underline{4})$$

$$(3 \times 3) \times \underline{4}$$

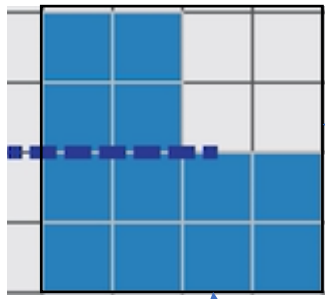
$$2 \times 2 = 4 \text{ square units}$$

$$2 \times 4 = 8 \text{ square units}$$



To find the area of an odd shape, break it up into 2 even shapes. Find the area of the first shape, then find the area of the second shape. Finally, add the two areas together.

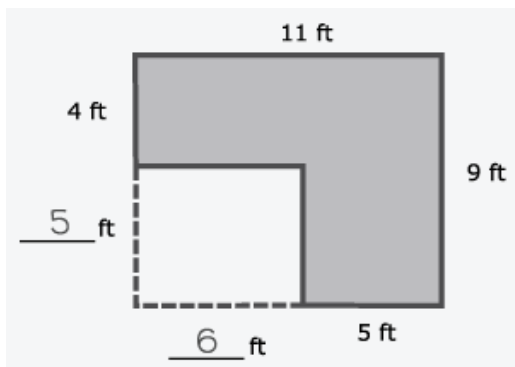
$$4 + 8 = 12 \text{ square units}$$



To find the area of the unshaded part of the shape, **subtract** the unshaded area from the larger rectangle.

The area of the 4×4 square is 16 square units.
The unshaded area is 4 units.

$$16 - 4 = 12 \text{ square units}$$



a. Area of the big rectangle: $\underline{11} \times \underline{9} = \underline{99}$ sq ft

b. Area of the small rectangle: $\underline{5} \times \underline{6} = \underline{30}$ sq ft

c. Area of the shaded region: $\underline{99} - \underline{30} = \underline{69}$ sq ft