3.6 (page 105) Perimeter & Area

Perimeter (P) -> the distance around an enclosed geometric figure

The perimeter can be found by adding all of the sides of the figure together.

Remember: Since you are using a measured distance, UNITS ARE IMPORTANT!!

With perimeter, you only have a single unit.

3.6 (page 105) Perimeter & Area

<u>Perimeter of Rectangle</u>

$$P = 2(l + w)$$

If a rectangle has a length of l and a width of w units, then the perimeter is twice the sum of the length and width.

3.6 (page 105) Perimeter & Area

Area (A) -> the measure of the surface enclosed by a geometric figure

When you find the area, you have square units in your answer.

Example: feet · feet = $feet^2$

To find the area, you will use multiplication instead of addition.

3.6 (page 105) Perimeter & Area

Area of Rectangle

$A = l \cdot w$

If a rectangle has a length of l and a width of w units, then the area is $l \cdot w$ square units.

3.6 (page 105) Perimeter & Area

Example: Find the perimeter and area of each rectangle.

Length: 14 ft Width: 7 ft

Perimeter

$P = 2(l+w)$

$= 2(14+7)$

$= 2(21)$

$P = 42$ ft

Area

$A = l \cdot w$

$= 14 \cdot 7$

$A = 98$ ft^2

3.6 (page 105) Perimeter & Area

Example: Find the perimeter and area of each rectangle.

Length: 9 cm Width: 9 cm

Perimeter

$P = 2(l+w)$

$= 2(9+9)$

$= 2(18)$

$P = 36$ cm

Area

$A = l \cdot w$

$= 9 \cdot 9$

$A = 81$ cm^2

3.6 (page 105) Perimeter & Area

Example: Find the perimeter and area of each rectangle.

Length: 16 m Width: 7 m

Perimeter

$P = 2(l + w)$

$= 2(16 + 7)$

$= 2(23)$

$P = 46$ m

Area

$A = l \cdot w$

$= 16 \cdot 7$

$A = 112 m^2$

3.6 (page 105) Perimeter & Area

Example: Find the perimeter and area of each rectangle.

Length: 11 ft Width: 3 ft

Perimeter

$P = 2(l + w)$

$= 2(11 + 3)$

$= 2(14)$

$P = 28$ ft

Area

$A = l \cdot w$

$= 11 \cdot 3$

$A = 33 ft^2$

3.6 (page 105) Perimeter & Area

Find the width.

Example: ~~Find the perimeter and area of each rectangle.~~

Area: 80 yd^2

Length: 10 yd Width: ? yd

$$A = l \cdot w$$

$$\frac{80}{10} = \frac{10 \cdot w}{10}$$

$$w = 8 \text{ yd}$$