Name _____

## Key Concept and Vocabulary

**Perimeter of a Rectangle**

$P = (2 \times \ell) + (2 \times w)$

perimeter     length     width

*Perimeter and area of a rectangle*
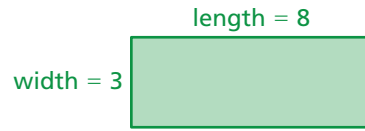
**Area of a Rectangle**

$A = \ell \times w$

area     length     width

## Visual Model

length = 8

width = 3

$P = (2 + \ell) + (2 + w)$      $A = \ell \times w$
$\quad = (2 \times 8) + (2 \times 3)$   $\quad = 8 \times 3$
$\quad = 16 + 6$         $\quad = 24$ square units
$\quad = 22$ units

## Skill Examples

**1.**

16 cm

14 cm

$P = (2 \times 16) + (2 \times 14)$
$\quad = 32 + 28$
$\quad = 60$ centimeters

**2.**

9 ft

12 ft

$A = 12 \times 9$
$\quad = 108$ square feet

## Application Example

**3.** You want to put string lights around a rectangular window that is 52 inches long and 32 inches wide. How many inches of lights do you need?

$P = (2 \times 52) + (2 \times 32)$
$\quad = 104 + 64$
$\quad = 168$ inches

You need 168 inches of lights.

## PRACTICE MAKES *PURR*-FECT®

*Check your answers at BigIdeasMath.com.*

**Find the perimeter of the rectangle.**

**4.**   6 yd

7 yd

Perimeter = _____

**5.**   84 m

27 m

Perimeter = _____

**6.**

$3\frac{3}{4}$ cm

5 cm

Perimeter = _____

**Find the area of the rectangle.**

**7.**   9 in.

4 in.

Area = _____

**8.**

45 ft

38 ft

Area = _____

**9.**

$1\frac{1}{2}$ m

6 m

Area = _____

**10. DIRT BIKE** You ride a dirt bike around a rectangular track that is 154 meters long and 110 meters wide. How long is one lap around the track? _____

**11. FLAG** You design a rectangular flag that is 60 inches long and 36 inches wide. How many square inches of fabric do you need to make the flag? _____