REVIEW: Formulas for Perimeter and Area of a Rectangle

Name _____

Key Concept and Vocabulary

Perimeter of a Rectangle

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

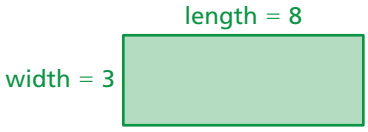
perimeter, length, width

Area of a Rectangle

$A = \ell \times w$

area, length, width

Visual Model

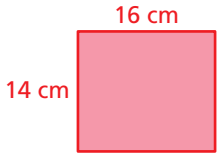


$P = (2 + \ell) + (2 + w)$
$= (2 \times 8) + (2 \times 3)$
$= 16 + 6$
$= 22$ units

$A = \ell \times w$
$= 8 \times 3$
$= 24$ square units

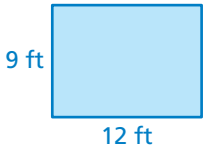
Skill Examples

1.



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

2.



$A = 12 \times 9$
$= 108$ 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?

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

∴ You need 168 inches of lights.

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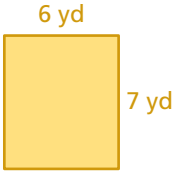
Check your answers at BigIdeasMath.com.

Find the perimeter of the rectangle.

4.

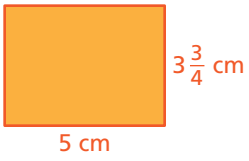


Perimeter = 26 yards

5.

Perimeter = 222 meters

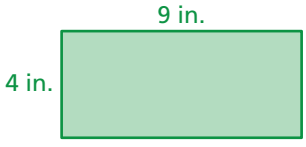
6.



Perimeter = $17\frac{2}{4}$, or $17\frac{1}{2}$ centimeters

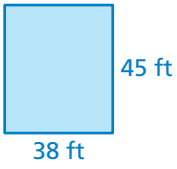
Find the area of the rectangle.

7.



Area = 36 square inches

8.



Area = 1,710 square feet

9.

Area = 9 square meters

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? 528 meters

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? 2,160 square inches