Notes for Lesson 11-1: Perimeter and Area of Rectangles

Review:

Perimeter is defined as the distance around the outside edge of a polygon.

Perimeter of all polygons:
Perimeter = sum of the lengths of each side

Area is defined as the amount of square units it takes to fill in a polygon

Area of *rectangles*:
Area = base x height

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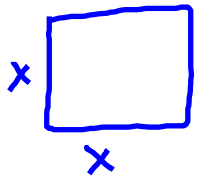
1) Complete the following table assuming all polygons are rectangles:

Length of base	**8 cm**	**12 ft**	60 m
Length of height	**7 cm**	12 ft	**2 m**
Area of rectangle	56 cm²	**144 ft²**	**120 m²**
Perimeter of rectangle	30 cm	48 ft	124 m

2) Find the side of a square if its area is 64 in²

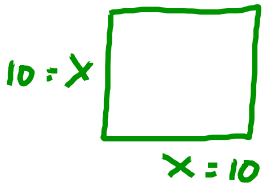


8 in

$x \cdot x = 64$

$x^2 = 64$

3) Find the area of a square if its perimeter is 40 cm



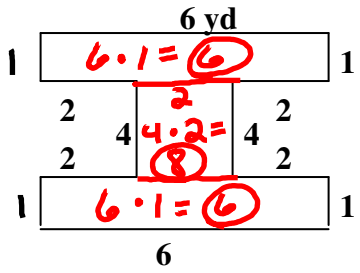
$4x = 40$

$x = 10$ cm

$A = 10 \cdot 10 = 100\ cm^2$

Find the perimeter and area of each figure below:

4)

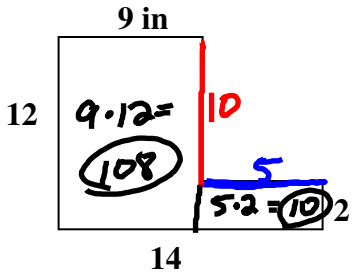


$P = 2 \cdot 4 + 4 \cdot 2 + 1 \cdot 4 + 6 \cdot 2$

$= 32\text{ yd}$

$A = 20\text{ yd}^2$

5)

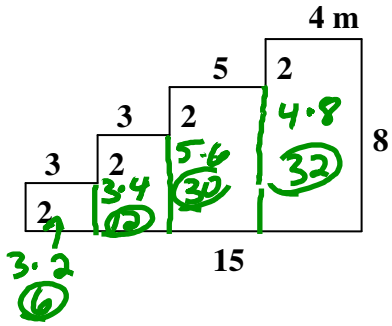


$P = 9 + 10 + 5 + 2 + 14 + 12$

$= 52\text{ in}$

$A = 108 + 10 = 118\text{ in}^2$

6)



$P = 4 + 2 \cdot 4 + 5 + 3 \cdot 2 + 8 + 15$

$= 46\text{ m}$

$A = 32 + 30 + 12 + 6$

$= 80\text{ m}^2$