Perimeter Puzzlers

1. The shaded rectangle has a perimeter of 18 cm. Draw a different rectangle that has a perimeter of 18 cm.

2. Draw a square and find the perimeter. Then draw a rectangle that has the same perimeter as the square.

Find the unknown length for each rectangle.



Aiden's Garden

Find the area of each rectangular garden using the formula $A = b \times h$. Write your answer for each garden on the line provided.



2. Write Math Explain how you found the area for garden G.

Unusual Measures

A very long time ago, people used body units to measure lengths.

Span	length from the end of the thumb to the end of the little finger when hand is stretched fully							
Cubit	length from the elbow to the end of the longest finger							
Fathom	length from fingertip to fingertip when arms are							

stretched fully in opposite directions



Object Measured	Measured in Spans	Measured in Cubits	Measured in Fathoms			
	Area	Area	Area			
Desk Top	12 square spans	2 square cubits				
1.						
2.						
3.						
4.						

5. Write Math **Explain** how you found the area in square spans.





Rectangular Riddles

Solve each riddle.

- I am a rectangle. My perimeter is 60 feet. My length is twice as long as my width. How much area do I cover?
- 2. I am a rectangle, and my area is 80 square inches. My width is 2 inches shorter than my length. What is my perimeter?
- a. I am the fencing around the rectangular lion exhibit at a zoo. The lions have 1,000 square meters to roam inside a rectangular area that is 15 meters longer than it is wide. If I were to unwind and make myself straight, how long would I be?
- **4.** I am a rectangular picture frame. If I were straight, I would be 120 inches long. I am wrapped around a picture, and my length is twice as long as my width. What is the area of the picture that I am wrapped around?

5. Stretch Your Thinking Write two of your own rectangular riddles. Write one that asks for perimeter and one that asks for area.

Building Bedrooms

The Harrisons have two children. They need your help with designing a bedroom for each child. Here are the conditions.

- Both rooms must be rectangular and have one wall in common.
- All measurements must be in whole feet.
- The walls are 8 feet high.
- Each room must have a door and at least two windows.
- Up to 100 feet of border in total may be used for the walls of the two rooms.

In the space below, design the two bedrooms for the Harrisons. Label all dimensions.

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1	1. How much carpeting will be needed to cover the floors of both																	

rooms?

2. One can of paint covers 200 square feet. Estimate how many cans of paint will be needed to paint the walls of both rooms.