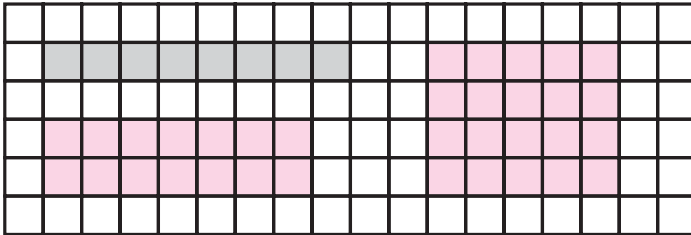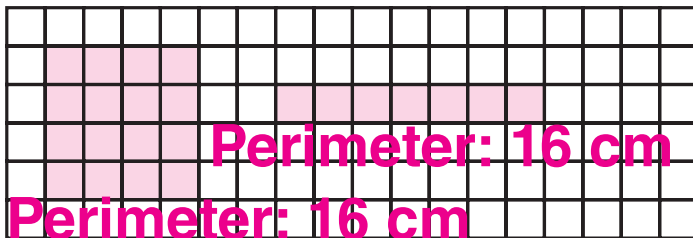Name _____

# Perimeter Puzzlers

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

**Possible answers are shown.**

**2.** Draw a square and find the perimeter. Then draw a rectangle that has the same perimeter as the square.
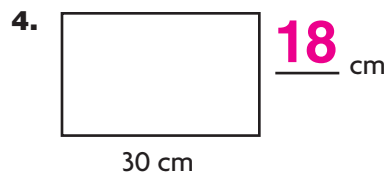
**Possible answers are shown.**

**Perimeter: 16 cm**

**Perimeter: 16 cm**

**Find the unknown length for each rectangle.**

**3.**

**10** ft
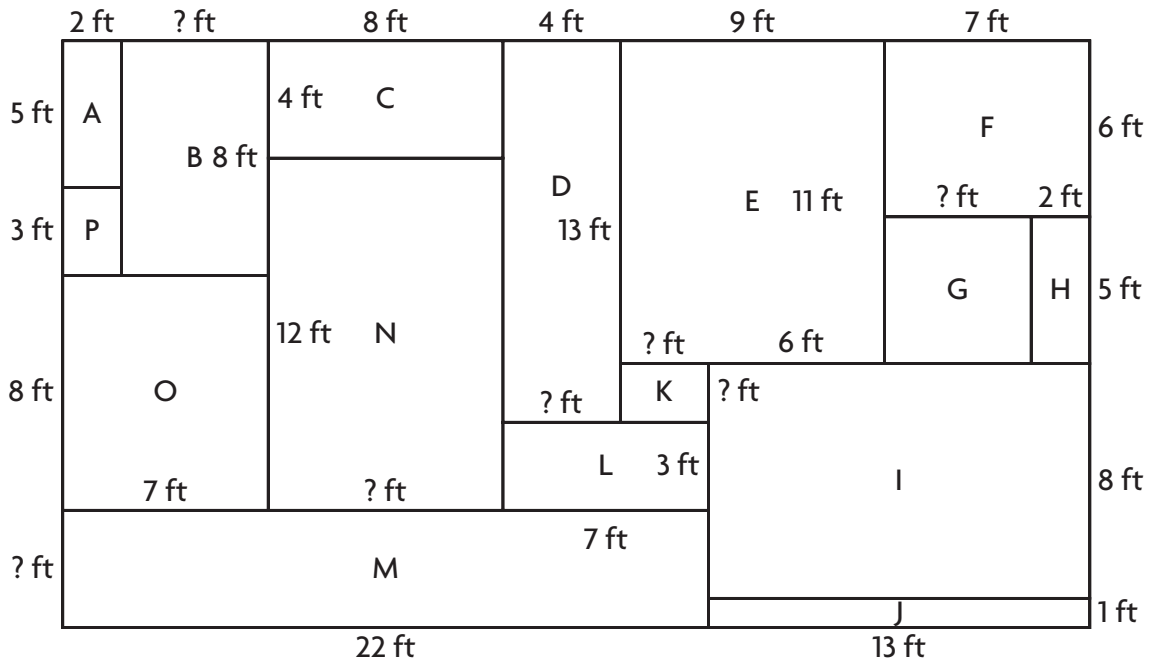
15 ft

**Perimeter = 50 ft**

**4.**

**18** cm

30 cm

**Perimeter = 96 cm**

Name _____

# 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.**



**1.**

A  **10 sq ft**   B  **40 sq ft**   C  **32 sq ft**   D  **52 sq ft**

E  **99 sq ft**   F  **42 sq ft**   G  **25 sq ft**   H  **10 sq ft**

I  **104 sq ft**   J  **13 sq ft**   K  **6 sq ft**   L  **21 sq ft**

M  **88 sq ft**   N  **96 sq ft**   O  **56 sq ft**   P  **6 sq ft**

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

**Possible explanation: I used the height from garden**

**H, 5 ft, and subtracted the base of garden H, 2 ft,**

**from the base of garden F, 7 ft, to get the base of**

**garden G, 7 − 2 = 5, or 5 ft. Then I multiplied the**

**base times the height to find the area, 25 sq ft.**

# 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

**You can use body measures to estimate the areas of objects at school. List some objects. Then choose the most appropriate unit to estimate the area of the object. Record your results in the chart below. Follow the two examples shown.**

**Sample objects are given. Check students' answers.**

| Object Measured | Measured in Spans Area | Measured in Cubits Area | Measured in Fathoms Area |
|---|---|---|---|
| Desk Top | 12 square spans | 2 square cubits | |
| 1. **Blackboard** | | | |
| 2. **Hallway** | | | |
| 3. **Door** | | | |
| 4. **Window** | | | |

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

**Possible answer: I measured the length and the width of the object from the tip of my thumb to the end of my little finger with my hand spread out. Then I multiplied the two measurements to find the number of square spans in the area.**

Name _____

# Rectangular Riddles

**Solve each riddle.**

**1.** I am a rectangle. My perimeter is 60 feet. My length is twice as long as my width. How much area do I cover?

**200 square feet**

**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?

**36 inches**

**3.** 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?

**130 meters**

**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?

**800 square inches**

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

**Check students' work.**

_____

_____

_____

_____

# 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.**

**Check students' drawings.**

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

**Check students' work.**

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.

**Check students' work.**