

More About Perimeter

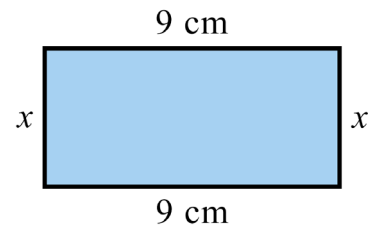
The perimeter of a rectangle is 30 cm. Its one side is 9 cm. How long is the other side?

We can write an addition equation with an unknown:

$$9 + x + 9 + x = 30$$

You could guess and check to solve it. But, there is an easier way. Just think: the two sides, 9 and x , form *half* of the perimeter. So, $9 + x = 15$.

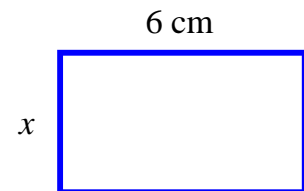
Thinking either way, we can solve that $x = 6$ cm.



1. Solve. Write an addition with an unknown for each problem.

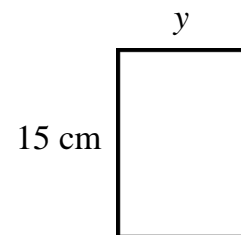
- a. The perimeter of this rectangle is 20 cm. Its one side is 6 cm. How long is the other side?

Solution: $x =$ _____



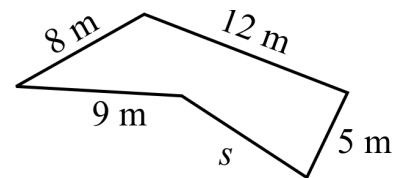
- b. The perimeter of this rectangle is 44 cm. Its one side is 15 cm. How long is the other side?

Solution: _____



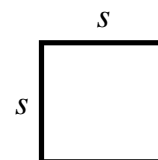
- c. The perimeter of this shape is 42 m. What is the length of the unknown side?

Solution: _____

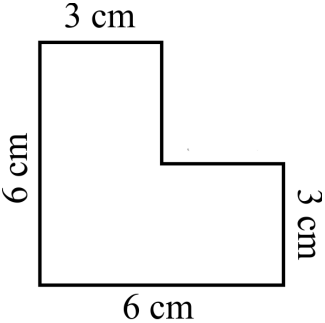
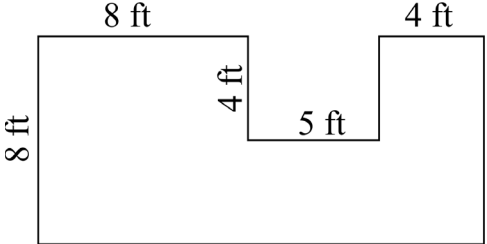


- d. The perimeter of this square is 12 inches. How long is its side?

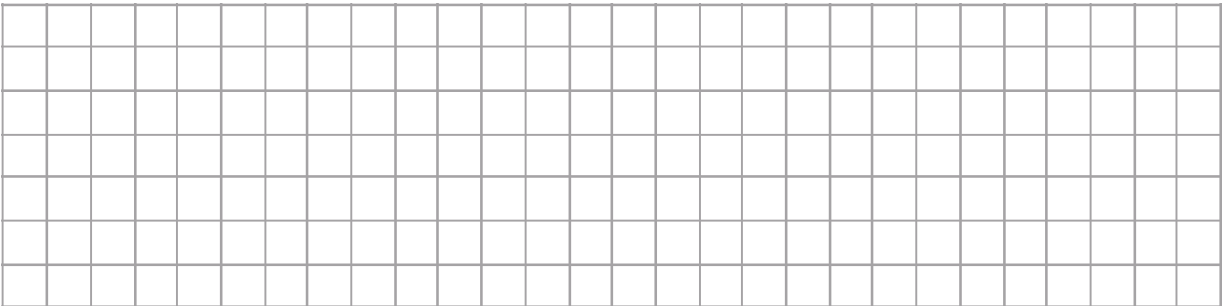
Solution: _____



2. These shapes are rectilinear. It means each shape could be divided (decomposed) into rectangles. Find the perimeter of each shape. Note that some side lengths are not given, and you need to figure them out.

<p>a.</p> 	<p>b.</p> 
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3. Draw a shape here that is **not** a rectangle and has a perimeter of **a. 8 units** **b. 14 units**.



4. Amy has a painting that is in the shape of a hexagon. She wants to make a frame for it. Each side of the hexagon measures 9 inches. How much of the frame border does she need?

5. The parking lot of a school is in the shape shown here. Each little unit in the image is 10 meters.

- a.** What is the perimeter of the shape, in units?
- b.** What is the perimeter of the parking lot, in meters?

