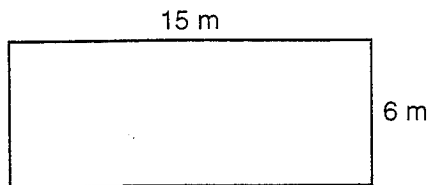


Perimeter

Find the perimeter of the figure below.



By using a formula:

There are two equal lengths and equal widths, so you can use the formula

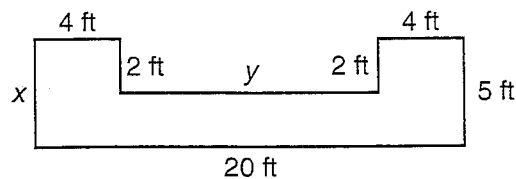
$$P = 2l + 2w.$$

$$P = 2(6) + 2(15)$$

$$= 12 + 30$$

$$= 42$$

The perimeter is 42 m.



Sometimes you are not given the lengths of all the sides of a polygon.

Side x is the same size as the side parallel to it. So, side $x = 5$ ft.

You can figure out the length of side y by looking at the side parallel to it. That side is 20 ft.

$$4 \text{ ft} + 4 \text{ ft} + y \text{ ft} = 20 \text{ ft}$$

$$8 \text{ ft} + y \text{ ft} = 20 \text{ ft}$$

$$8 \text{ ft} + 12 \text{ ft} = 20 \text{ ft}$$

So, $y = 12$ ft.

Now you can add up all the sides to find the perimeter.

$$4 + 2 + 12 + 2 + 4 + 5 + 20 + 5 = 54$$

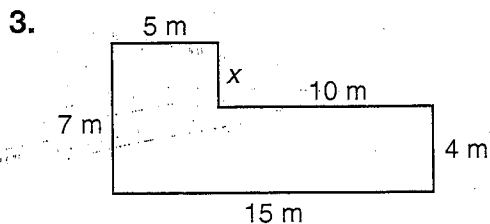
$$P = 54 \text{ ft}$$

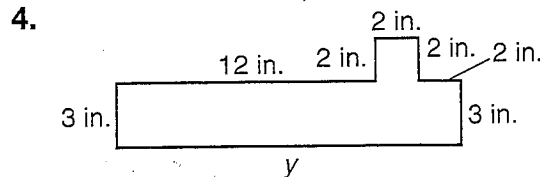
Find the perimeter of each figure.

1. rectangle, length 5.1 ft, width 7.4 ft

2. regular octagon, sides 4.6 cm long

Find the length of each unknown side. Then find the perimeter.



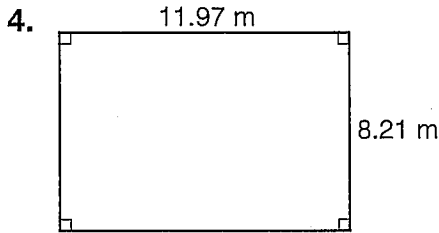


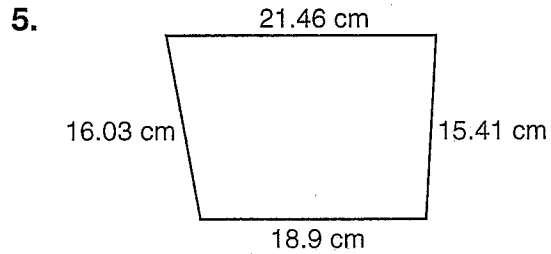
Perimeter

Find the perimeter of each figure.

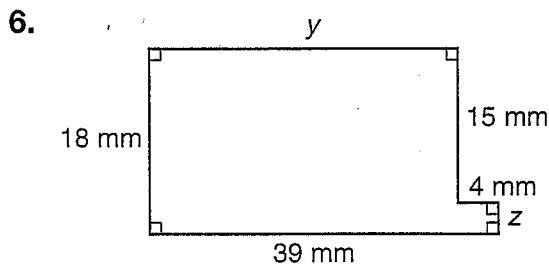
- | | | |
|--|--|---|
| 1. rectangle
length 6 in., width 14 in. | 2. regular pentagon
sides 3.3 cm long | 3. regular octagon
sides $8\frac{3}{4}$ in. long |
|--|--|---|

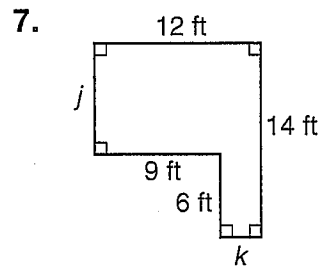
Estimate the perimeter of each figure. Then find the perimeter.





Find the length of each unknown side. Then find the perimeter.





Test Prep

8. One side of a regular hexagon is 18 cm. Which is the perimeter?
A. 108 cm **B.** 96 cm **C.** 72 cm **D.** 36 cm
9. **Writing in Math** A square and a rectangle each have a perimeter of 100 ft. Explain how this is possible.

