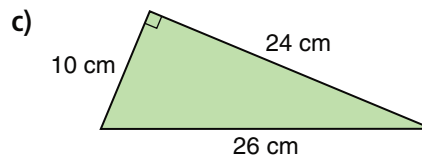
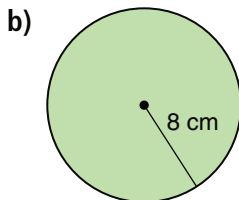
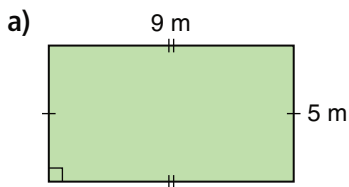
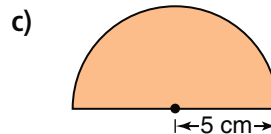
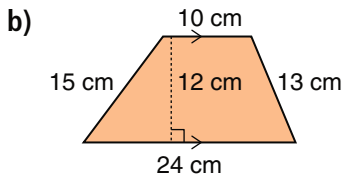
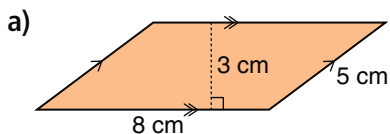


Practice

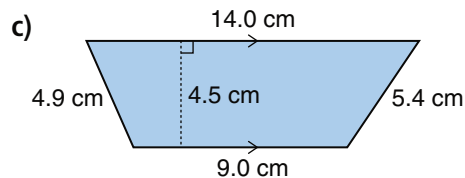
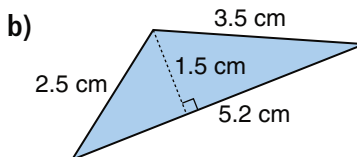
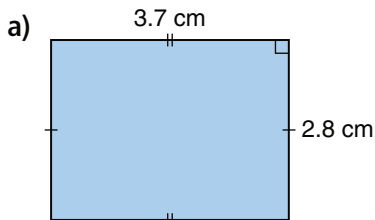
1. Determine the perimeter and area of each figure.



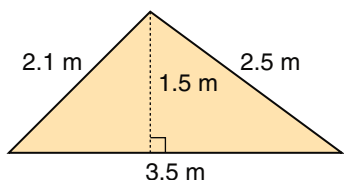
2. Determine the perimeter and area of each figure.



3. Determine the perimeter and area of each figure.

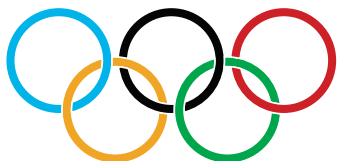


4. The sail on a yacht has the shape of a triangle.
What is the area of this sail?

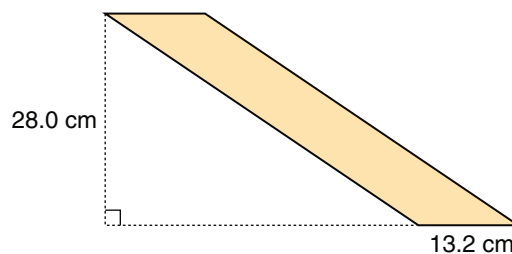


Remember to show your work.

5. Reanne is making the circles of the Olympic symbol from plastic tubing.
Each circle has radius 75 cm. How much tubing does she need?



6. When a paper towel tube is cut along its seam, it unwraps to form a parallelogram.
How much cardboard is used to make the tube?



We can use a formula to determine the length or width when the perimeter is known.

Example

The perimeter of a rectangle is 56 cm. Its width is 4 cm. What is its length?

Solution

The perimeter P of a rectangle is:

$$P = 2\ell + 2w$$

Substitute: $P = 56$ and $w = 4$

$$56 = 2\ell + 2(4)$$

Solve for ℓ .

$$56 = 2\ell + 8$$

Think: What do we add to 8 to get 56?

We know that $56 = 48 + 8$

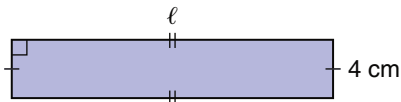
$$\text{So, } 2\ell = 48$$

Think: What do we multiply 2 by to get 48?

We know that $2 \times 24 = 48$

$$\text{So, } \ell = 24$$

The rectangle is 24 cm long.



7. The area of a rectangle is 48 cm^2 .
 - a) The width is 6 cm. What is its length?
 - b) The length is 12 cm. What is its width?
8. Rosa has 24 m of fencing to make a square pen for her dog. How long is each side of the pen? Sketch the pen. Justify your answer.
9. **Assessment Focus** Serena has 3 m of garden edging. She wants to make a flowerbed that is an isosceles triangle.
 - a) Suppose each equal side is 90 cm long. How long is the third side?
 - b) Suppose the third side is 90 cm long. How long is each equal side?
 Justify your answers.
10. **Take It Further** Luis makes a circle from a piece of wire 120 cm long.
 - a) What is the diameter of the circle?
 - b) Will the wire fit around a circular tube with diameter 40 cm? Justify your answer.

Having trouble?

Read the Example above.



Recall that
 $1 \text{ m} = 100 \text{ cm}$.

In Your Own Words

Choose one of the figures from this section. Explain how you found its perimeter or area.