

Perimeter and Area of Rectangles

The **perimeter** is the distance all the way around a shape. For a rectangle, add up all four sides:

$$\text{Perimeter} = 2 \times (\text{length} + \text{width})$$

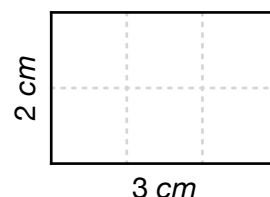
The **area** is the space inside the shape. For a rectangle, multiply the length by the width:

$$\text{Area} = \text{length} \times \text{width}$$

The rectangle on the right is 3 *cm* wide and 2 *cm* tall.

The perimeter is: $2 \times (3 + 2) = 10 \text{ cm}$

The area is: $2 \times 3 = 6 \text{ cm}^2$

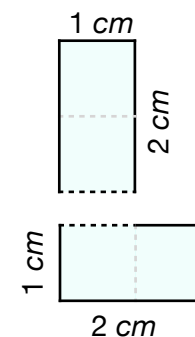
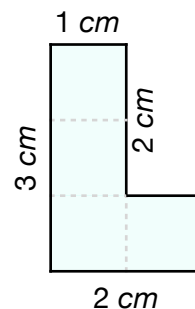


Look at the L-shape on the right. To find the perimeter, start at one corner and carefully walk around the outside, adding up the lengths of all the sides. If any side length is missing, you can figure it out by looking at the sides that are lined up with it.

$$3 + 2 + 1 + 1 + 2 + 1 = 10 \text{ cm}$$

To find the area, split the L-shape into two smaller rectangles. Find the area of each rectangle, then add the two areas together.

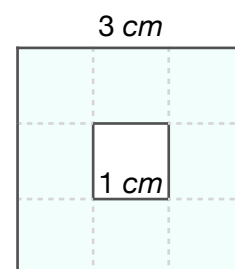
$$(1 \times 2) + (2 \times 1) = 4 \text{ cm}^2$$



The O-shape at the bottom is made from a big 3 *cm* by 3 *cm* square with a small 1 *cm* by 1 *cm* hole in the middle.

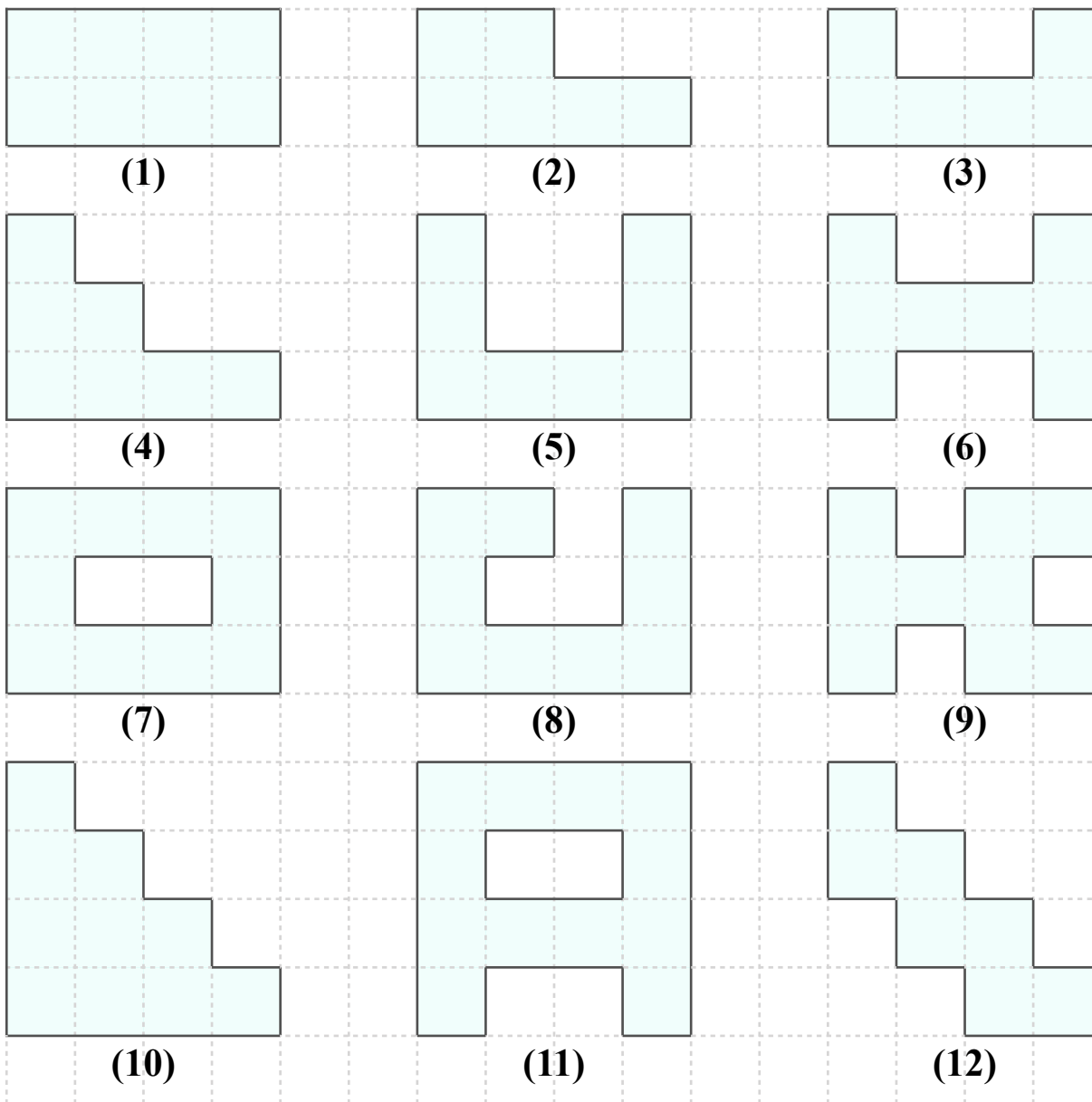
To find the perimeter, we add up the perimeters of both squares: $12 + 4 = 16 \text{ cm}$.

Whereas for the area, we subtract the small square's area from the big square's area: $9 - 1 = 8 \text{ cm}^2$.



Perimeter and Area of Rectangle Compositions

The following shapes are drawn on 1 *cm* grids. Can you find the perimeter and area of each shape?



	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
perimeter												
area												