

Mathematics

# Rectilinear shapes

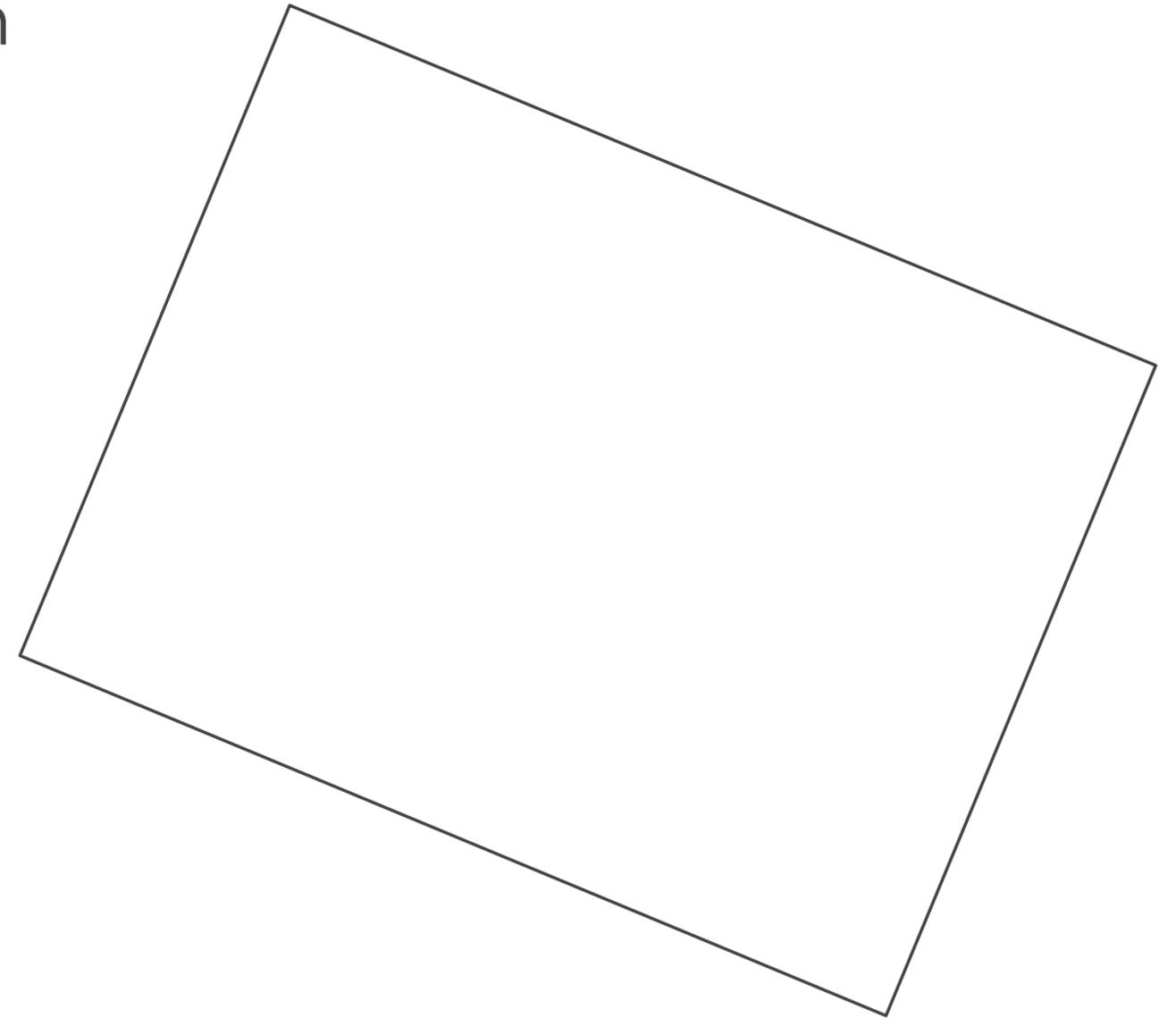
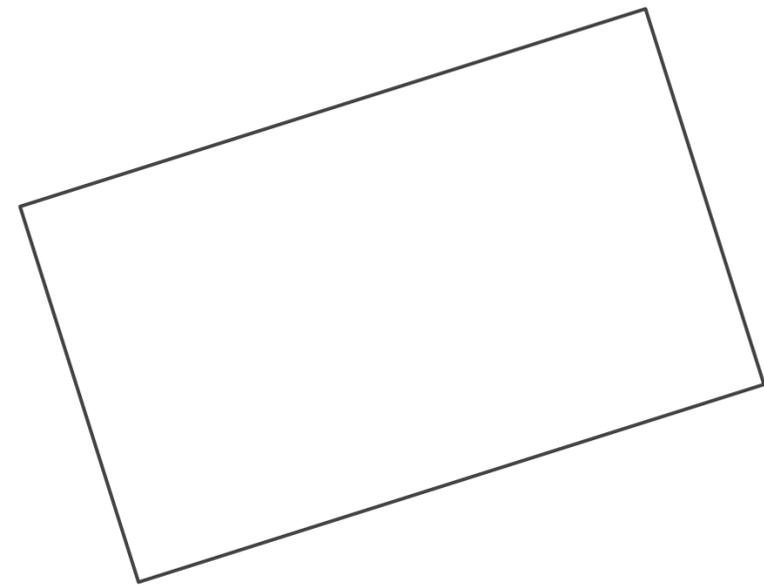
## Lesson 5 of 8

Miss Kidd-Rossiter



# Try this

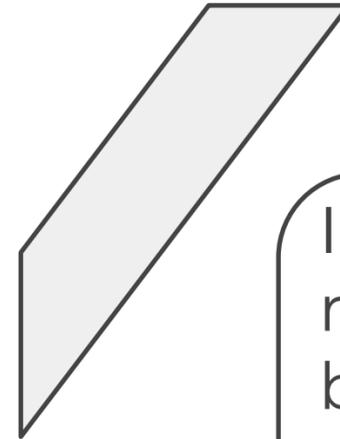
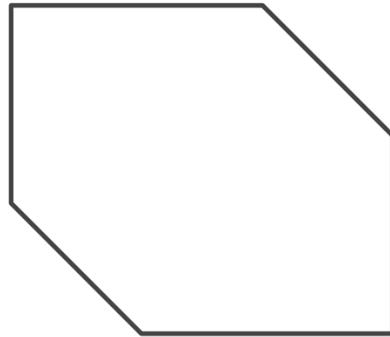
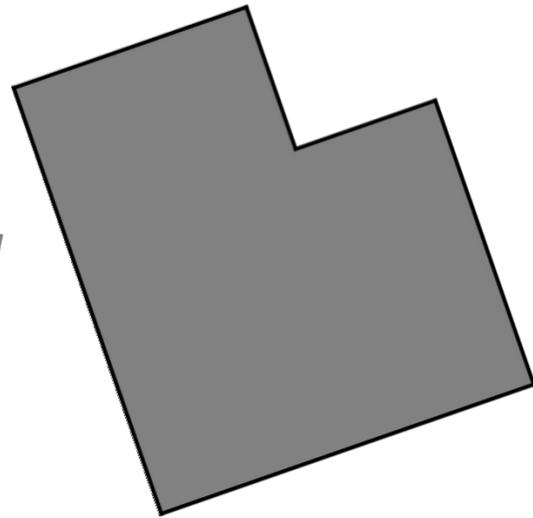
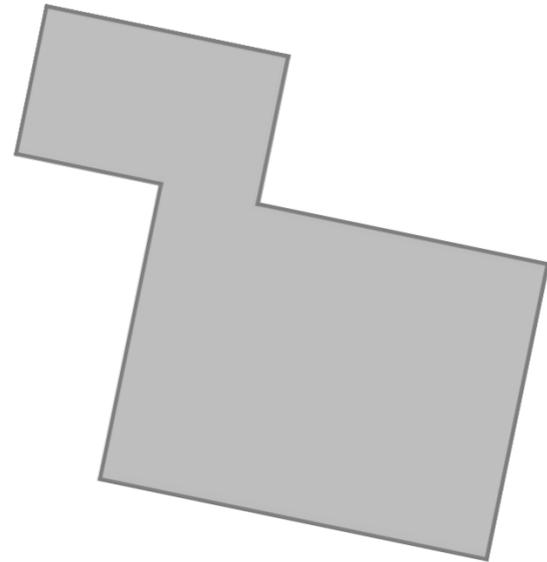
How many different compound shapes can you make by joining the sides of the two rectangles below?



# Connect

In a **rectilinear** shapes, all sides meet at right angles.

Which of the following shapes could be described as rectilinear?



I think that all  
rectilinear shapes can  
be split into  
rectangles.  
Do you agree?  
Try some examples.

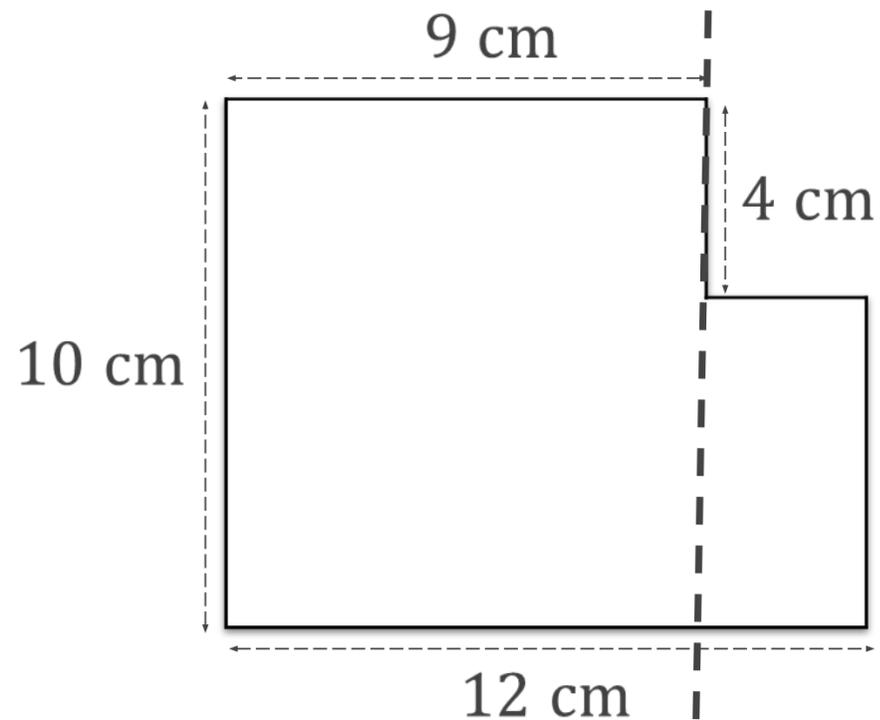
Yasmin



# Connect

The area of the hexagon was calculated by splitting it into rectangles.

**Explain** how the calculation relates to the area.



$$10 \times 9 + 6 \times 3$$

What splitting strategy could have led to the following calculations?

$$12 \times 6 + 4 \times 9$$

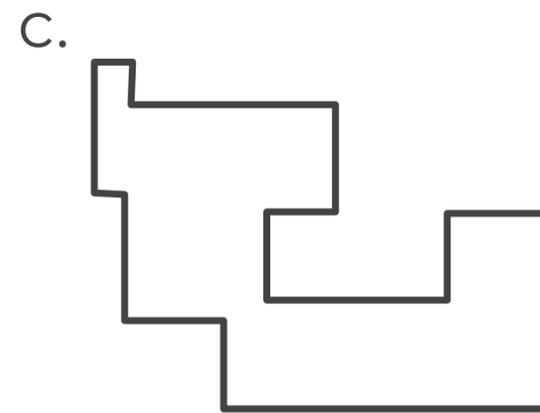
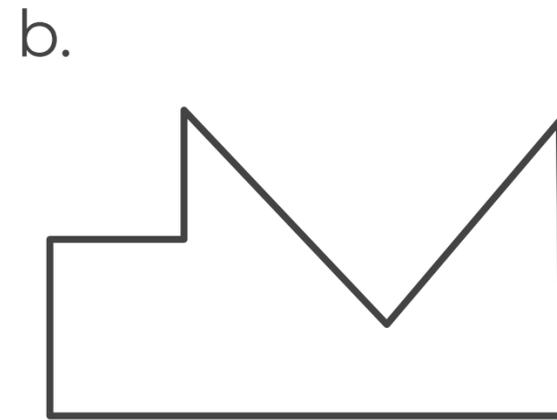
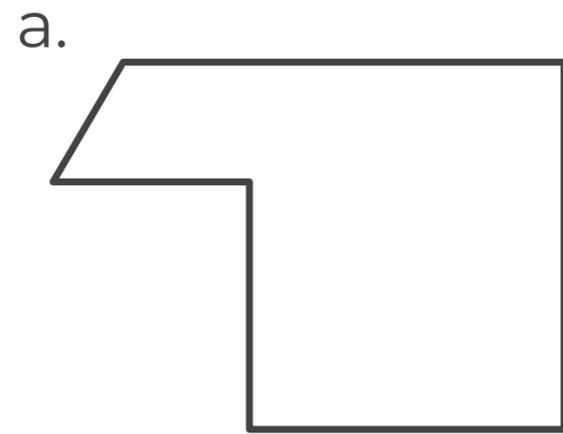
$$10 \times 12 - 3 \times 4$$

$$9 \times 6 + 4 \times 9 + 6 \times 3$$



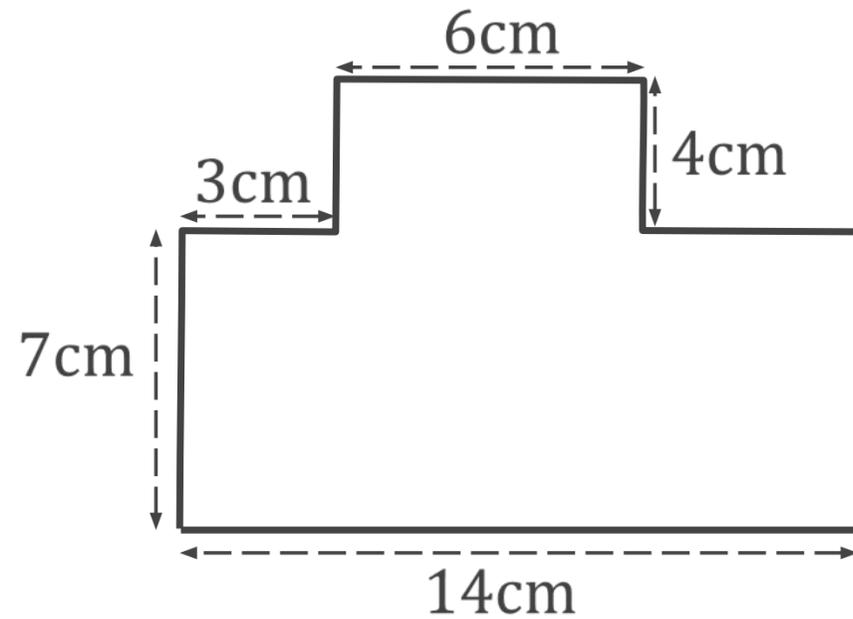
# Independent task

1. Which of these shapes is rectilinear?



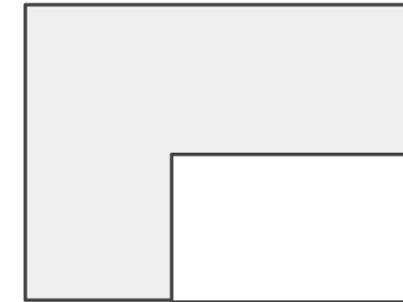
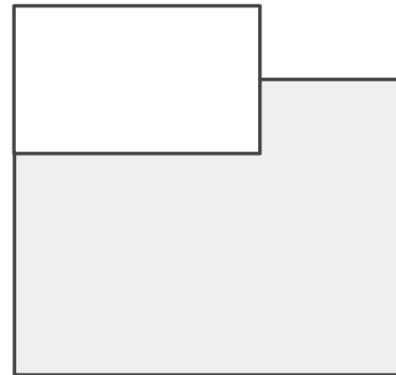
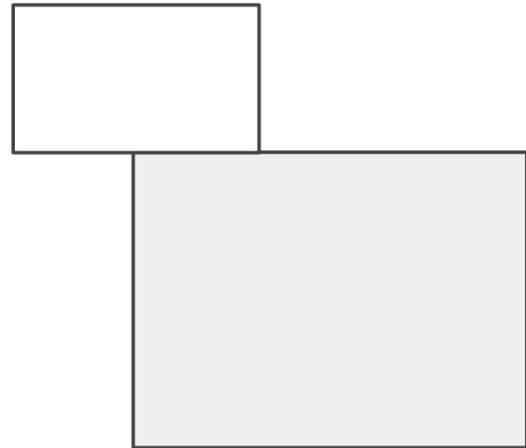
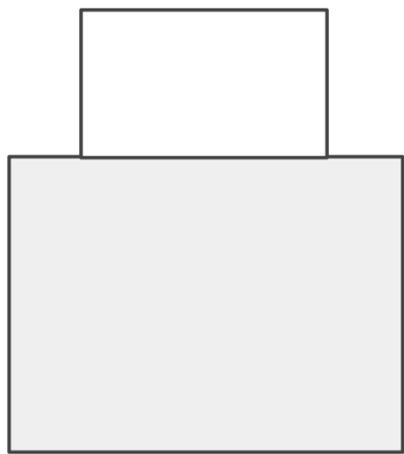
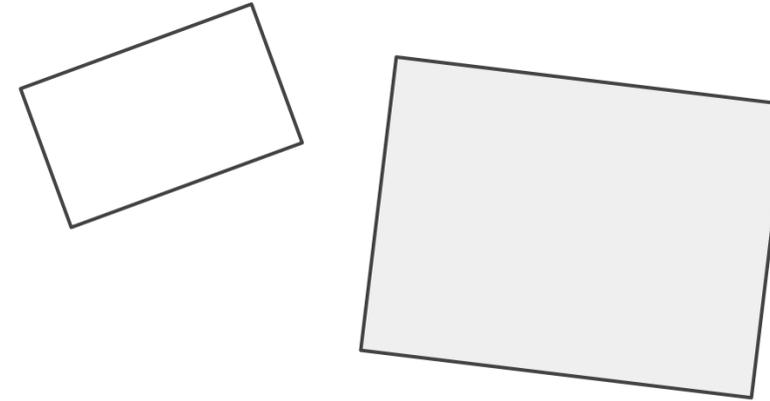
# Independent task

2. Complete the diagram with all dimensions and work out the area and perimeter of this shape.



# Explore

Two rectangles with a known area and perimeter are used to construct rectilinear compound shapes.



For which shapes do you know the area?

Can you find the perimeter of any of the shapes?

