Planner

Area

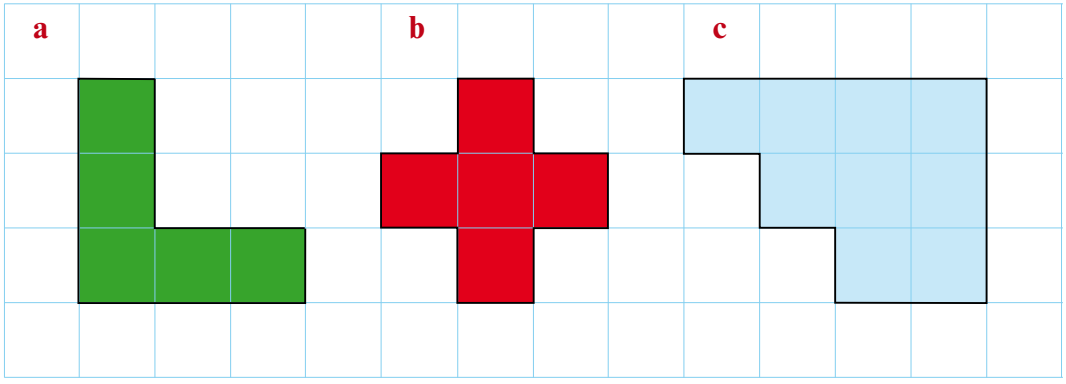
- Calculating the perimeter of a rectangles
- Calculating the area of rectangle, triangles and parallelograms
- Calculating the area of compound shapes

Keywords

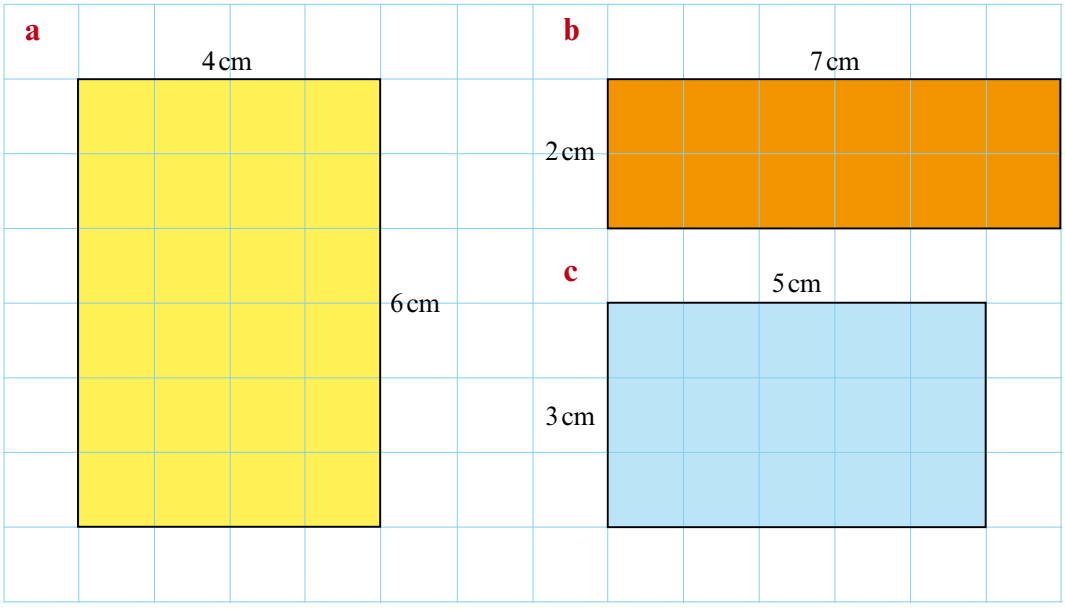
You should know

explanation 1a | explanation 1b | online

1 Find the perimeter of these shapes. The grid is a centimetre square grid.

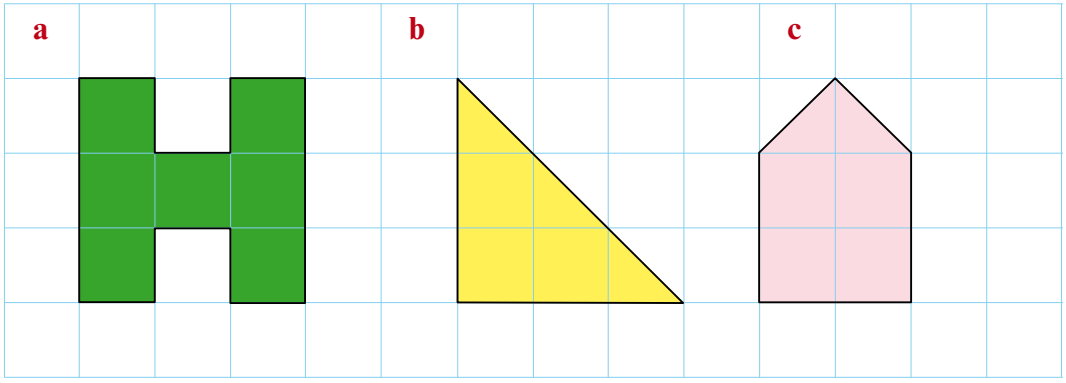


2 Find the perimeter of these rectangles.



explanation 2

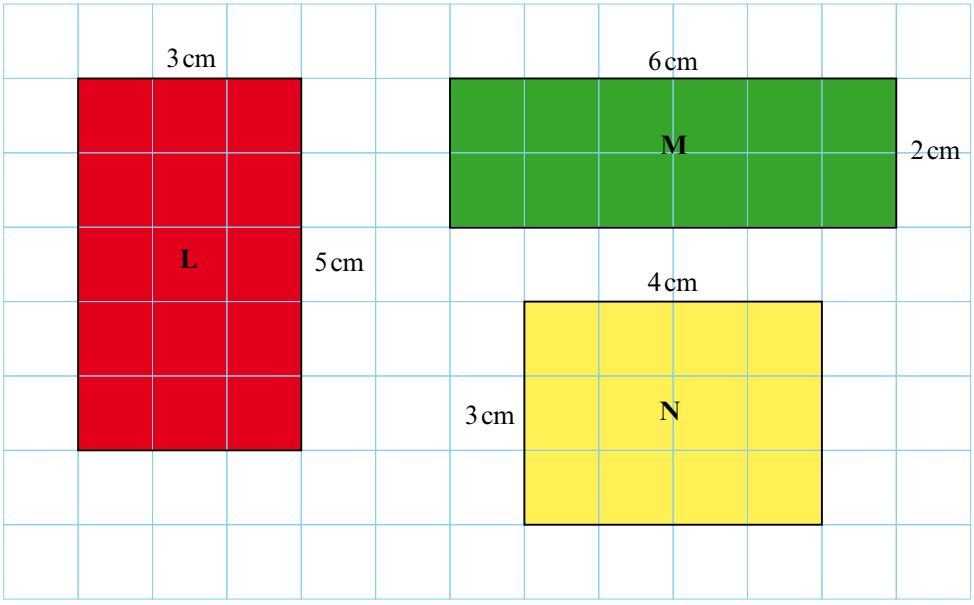
3 Find the area of each shape. The grid is a centimetre square grid.



4 The rectangles are on a centimetre square grid.

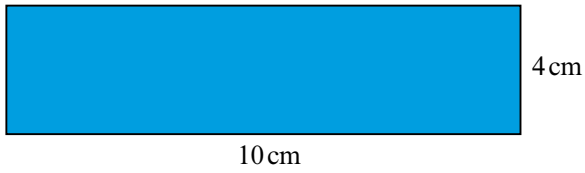
a Find the area of each rectangle.

b How can the side lengths of a rectangle help you to find the number of centimetre squares in it?



explanation 3 online

5 This rectangle is not drawn to scale.



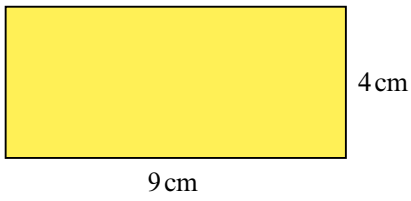
a How many centimetre squares would fit inside this rectangle?

b What is the area of this rectangle?

c Another rectangle has the same area. It is 8 cm long. What is its width?

6 Calculate the area of each rectangle.

a



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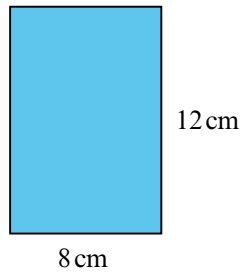
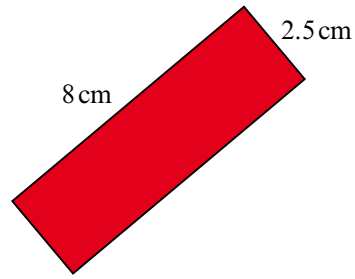
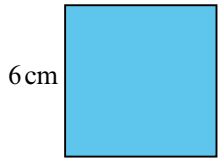


c



7 Calculate the area of each square.

a



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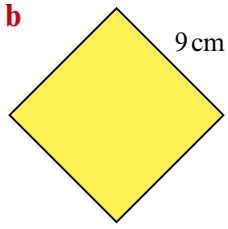

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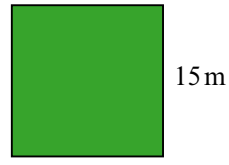


8 A square has perimeter 40 cm.

a What is the length of each side of the square?

b Calculate the area of the square.

9 A square has area 81 m^2.

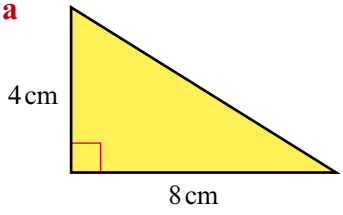
a What is the length of each side of the square?

b Calculate the perimeter of the square.

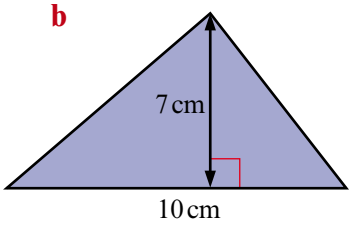
explanation 4a | explanation 4b | online

10 Calculate the area of each triangle.

a



b



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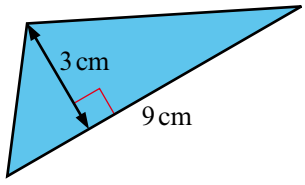
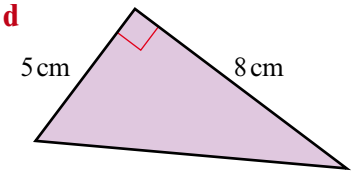


d



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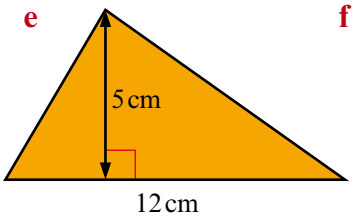

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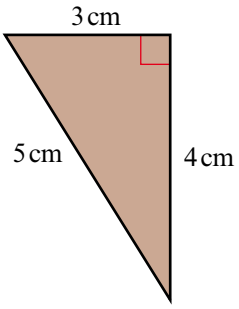
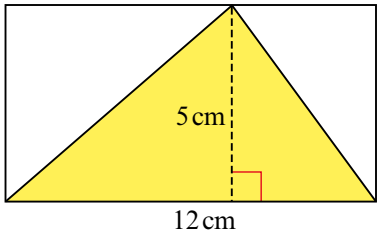


11 Paul said that the area of the coloured triangle is $5 \times 12 = 60\,\text{cm}^2$.

a Use the diagram to explain why Paul is wrong.

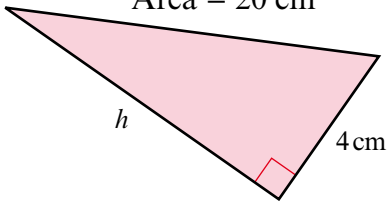
b What is the area of the triangle?



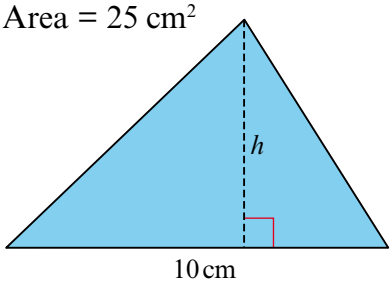
***12** The area and the base length of each triangle are given.

Calculate the height h of each triangle.

a Area = 20 cm^2



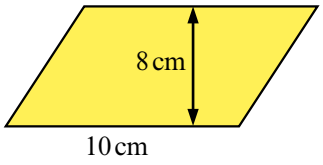
b Area = 25 cm^2



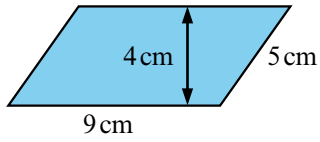
explanation 5

***13** Calculate the area of each parallelogram.

a



b



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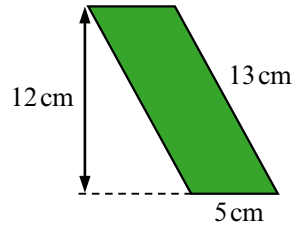

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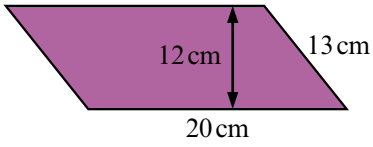

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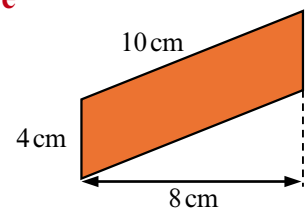

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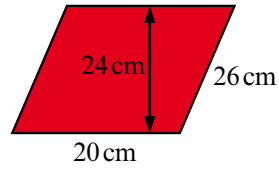

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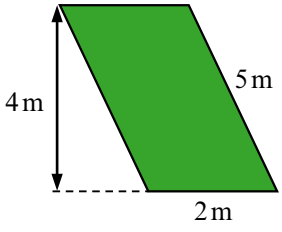
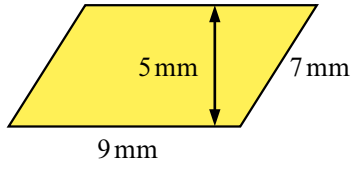
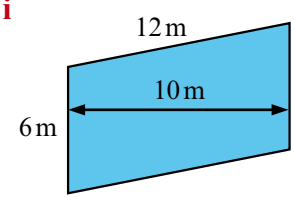


h



i



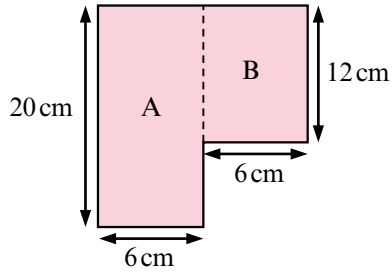
explanation 6 online

14 Copy and complete this area calculation.

Area A = 6 cm × 20 cm = ☐ cm^2

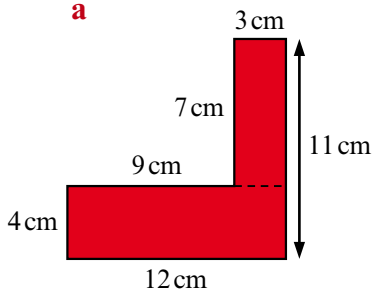
Area B = ☐ cm × ☐ cm = ☐ cm^2

Total area = ☐ cm^2

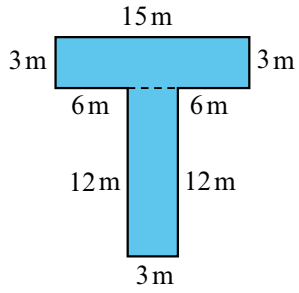


15 Work out the area of each shape.

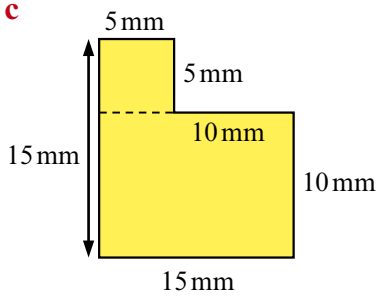
a



b

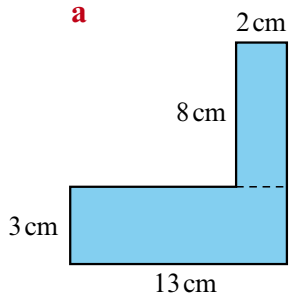


c



16 Work out the area of each shape.
You will have to work out some of the side lengths.

a



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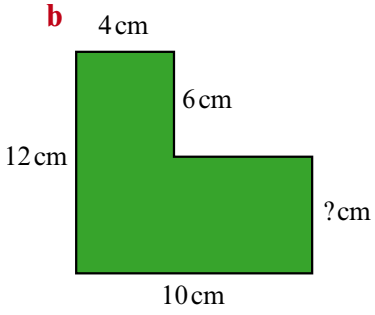

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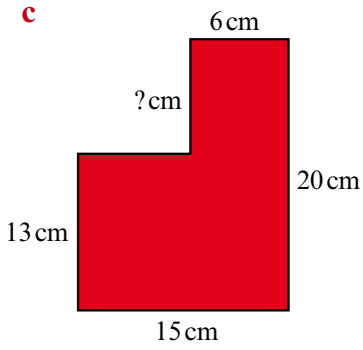
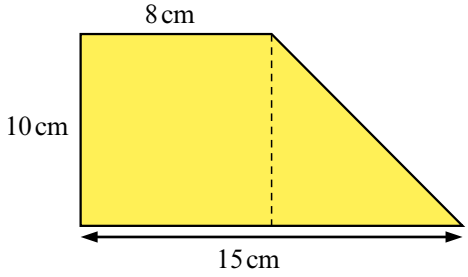


17 This trapezium is made from a rectangle and a triangle.



a What is the area of the rectangle?

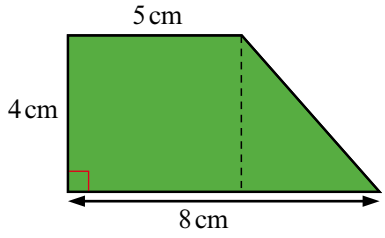
b Explain why the base of the triangle is 7 cm.

c What is the area of the triangle?

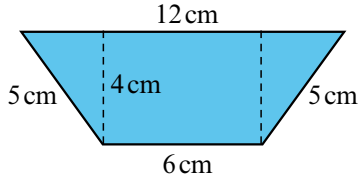
d Use your answers to show that the area of the trapezium is 115 cm^2.

***18** Work out the area of each trapezium.

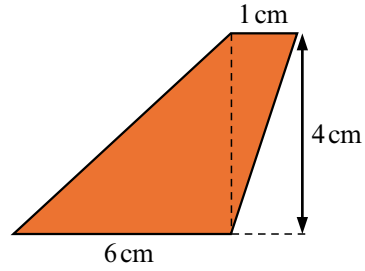
a



b



c



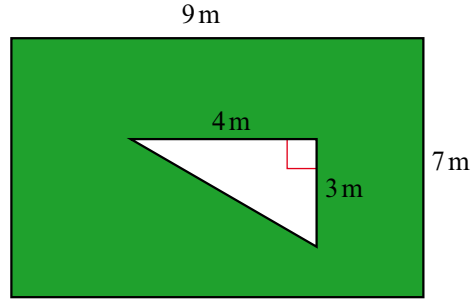
explanation 7

19 Look at this diagram.

a What is the area of the rectangle?

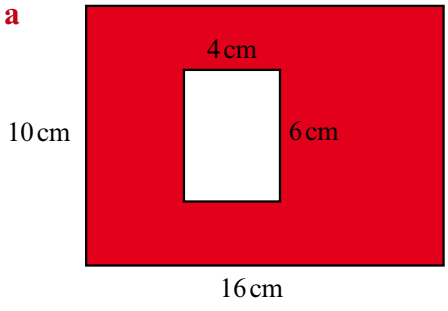
b What is the area of the triangle?

c Explain why the coloured area is 57 m^2.



20 Work out the coloured areas of these diagrams.

a



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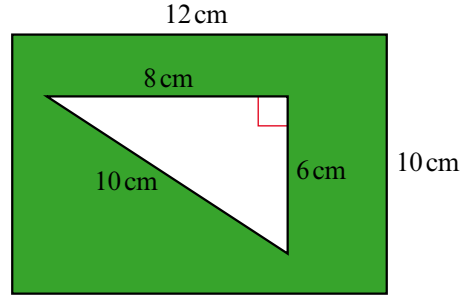
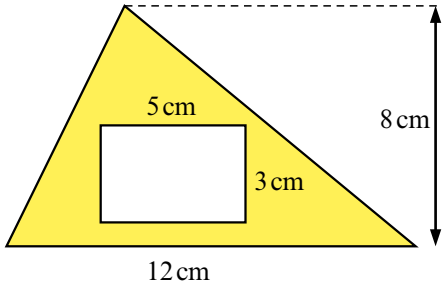


c



***d**