

Discussion Problems

Step 3: Perimeter of a Rectangle

National Curriculum Objectives:

Mathematics Year 4: (4M7a) [Measure and calculate the perimeter of a rectilinear figure \(including squares\) in centimetres and metres](#)

About this resource:

This resource has been designed for pupils who understand the concepts within [this step](#). It provides pupils with more opportunities to enhance their reasoning and problem solving skills through more challenging problems. Pupils can work in pairs or small groups to discuss with each other about how best to tackle the problem, as there is often more than one answer or more than one way to work through the problem.

There may be various answers for each problem. Where this is the case, we have provided one example answer to guide discussion.

We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

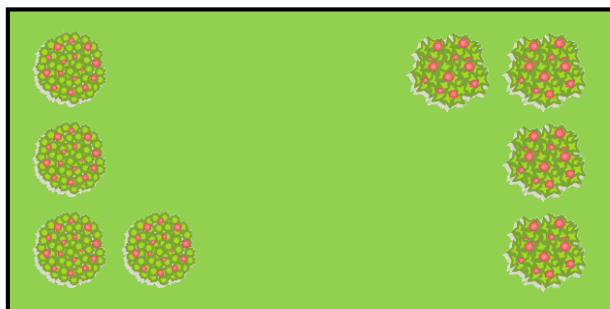
More [Year 4 Length and Perimeter](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

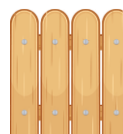
Perimeter of a Rectangle

1. Mr Hussain wants to put a border around the perimeter of his rectangular vegetable patch.

The length of the patch is twice its width and the total perimeter is 1,500cm.



500mm



200mm



100mm

Mr Hussain can use a combination of up to 3 different sized panels for the border.

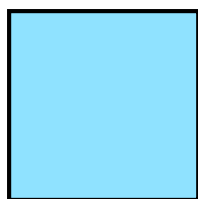
Investigate the possible combinations of panels that Mr Hussain could use to enclose the vegetable patch.

not to scale

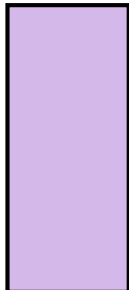
DP

2. Hannah has a square and 3 other rectangles. She has written the perimeter of one rectangle in the centre of it.

Some information is missing but the total perimeter of all 4 shapes is 420cm.



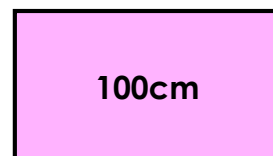
100mm



100mm



60cm



100cm

200mm

Using the information given, investigate what the missing values and the perimeters of each shape could be.

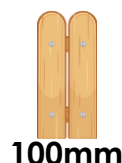
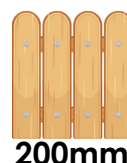
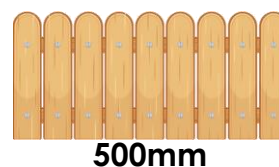
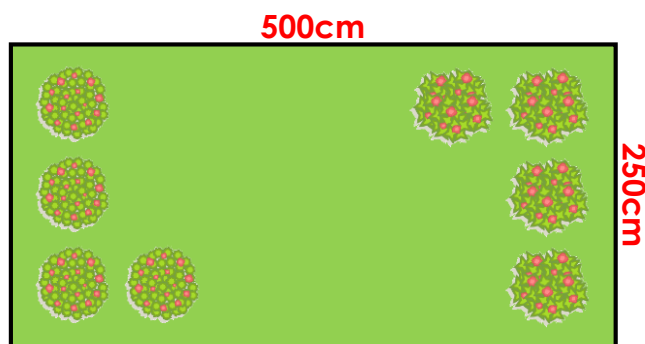
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DP

Perimeter of a Rectangle

1. Mr Hussain wants to put a border around the perimeter of his rectangular vegetable patch.

The length of the patch is twice its width and the total perimeter is 1,500cm.



Mr Hussain can use a combination of up to 3 different sized panels for the border.

Investigate the possible combinations of panels that Mr Hussain could use to enclose the vegetable patch.

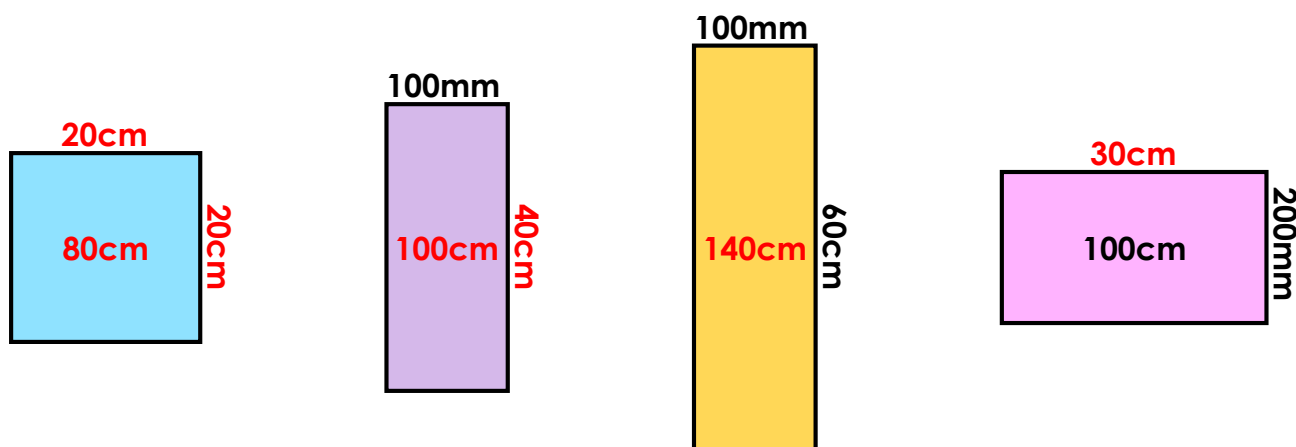
Various answers, for example: Mr Hussain could use 20 x 500mm panels, 20 x 200mm panels and 10 x 100mm panels.

not to scale

DP

2. Hannah has a square and 3 other rectangles. She has written the perimeter of one rectangle in the centre of it.

Some information is missing but the total perimeter of all 4 shapes is 420cm.



Using the information given, investigate what the missing values and the perimeters of each shape could be.

Various answers, example given above.

not to scale

DP