

# Discussion Problems

## Step 5: Horizontal and Vertical

### National Curriculum Objectives:

Mathematics Year 3: (3G2) [Identify horizontal and vertical lines and pairs of perpendicular and parallel lines](#)

### 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.

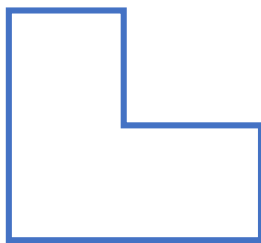
We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More [Year 3 Properties of Shape](#) resources.

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

# Horizontal and Vertical

1. Investigate drawing shapes using only horizontal and vertical lines. One has been drawn for you:

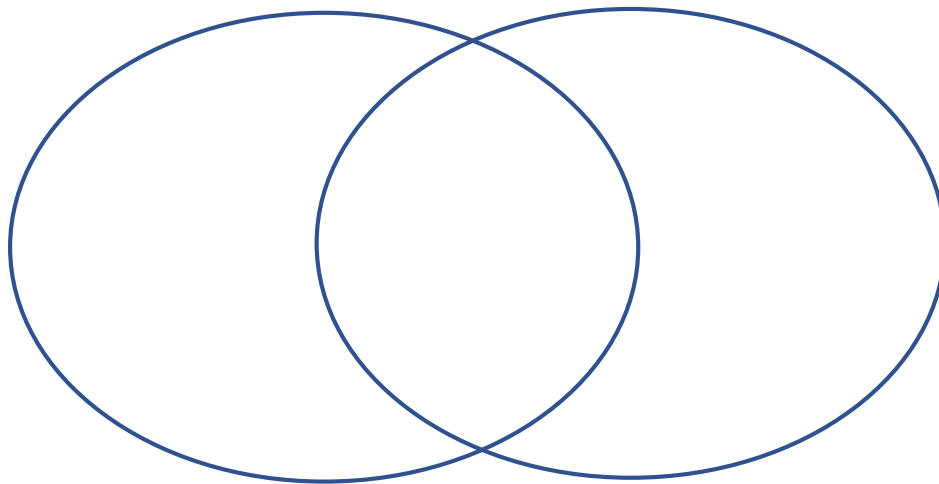


3 horizontal  
3 vertical

Record the number of vertical and horizontal lines you use for each shape. Is there a pattern? Explain your answer.

DP

2. Include the terms 'horizontal' and 'vertical' in your labels for the Venn diagram below:



Sort the flags below onto your Venn diagram.



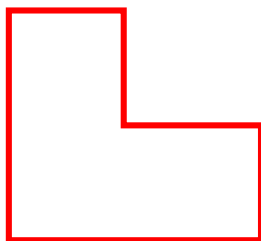
Find other ways to sort the flags using the terms 'horizontal' and 'vertical'

DP

# Horizontal and Vertical

1. Investigate drawing shapes using only horizontal and vertical lines. One has been drawn for you:

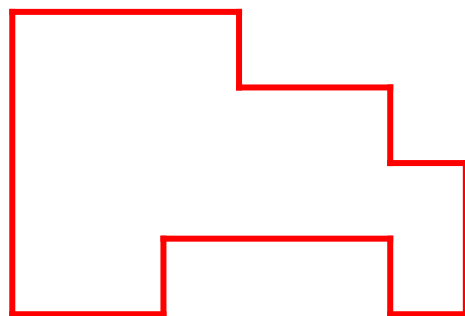
Various possible answers, for example:



3 horizontal  
3 vertical



2 horizontal  
2 vertical



6 horizontal  
6 vertical

Record the number of vertical and horizontal lines you use for each shape. Is there a pattern? Explain your answer.

Various possible answers, for example: The number of horizontal and vertical lines is always equal.

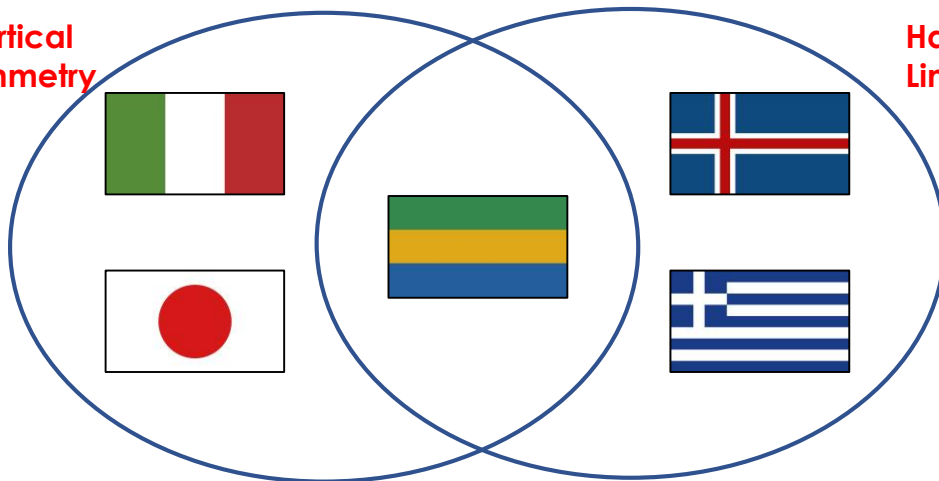
DP

2. Include the terms 'horizontal' and 'vertical' in your labels for the Venn diagram below:

Various possible answers, for example:

Have a Vertical Line of Symmetry

Have Horizontal Lines



Sort the flags below onto your Venn diagram.



Find other ways to sort the flags using the terms 'horizontal' and 'vertical'

DP