Discussion Problems
Step 5: Lines of Symmetry

National Curriculum Objectives:

Mathematics Year 4: (4G2b) Identify lines of symmetry in 2-D shapes presented in different orientations

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.

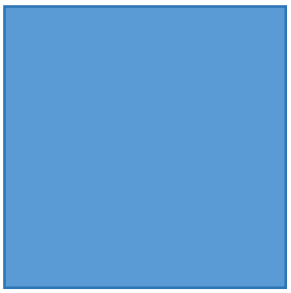
We recommend self or peer marking using the answer page provided to promote discussion and self-correction.

More Year 4 Properties of Shapes resources.

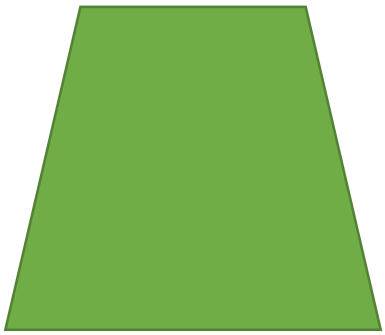
Did you like this resource? Don't forget to review it on our website.

Lines of Symmetry

1. Investigate the number of sides and lines of symmetry within regular and irregular polygons.



regular polygon



irregular polygon

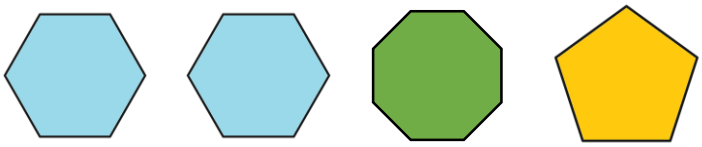
Record your findings.

DP

2. Inside the shape bag are a mixture of regular polygons. The total number of lines of symmetry equals twenty five.

Explore the combination of shapes that could be in the bag.

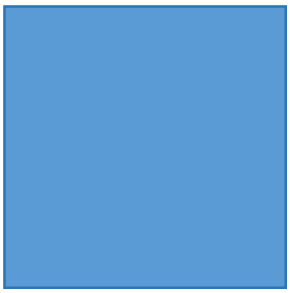
Here is an example below:



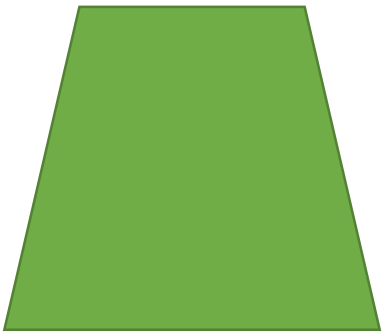
DP

Lines of Symmetry

1. Investigate the number of sides and lines of symmetry within regular and irregular polygons.



regular polygon



irregular polygon

Record your findings.

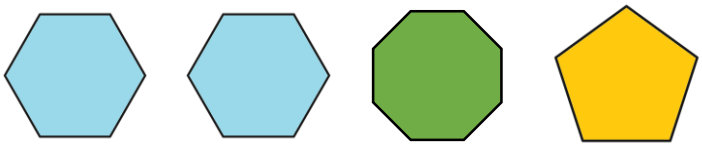
Regular polygons have the same number of lines of symmetry as they do sides. Irregular polygons do not.

DP

2. Inside the shape bag are a mixture of regular polygons. The total number of lines of symmetry equals twenty five.

Explore the combination of shapes that could be in the bag.

Here is an example below:



Various other combinations including; octagon, hexagon, 2 squares and a triangle.

DP