

Year 4 Maths 05.06.20

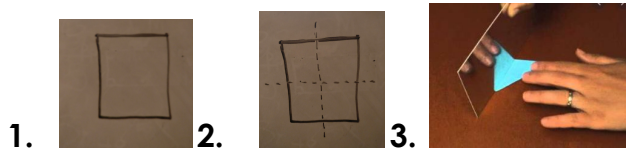
Steppingstone activity

LO: To identify lines of symmetry

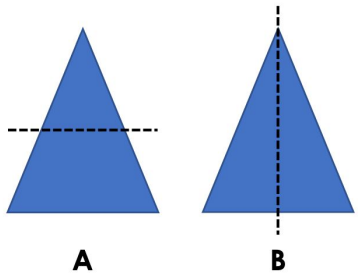
Success Criteria:

- | |
|--------------------------------|
| 1. Look at your shape |
| 2. Identify a line of symmetry |
| 3. If you can, use a mirror |

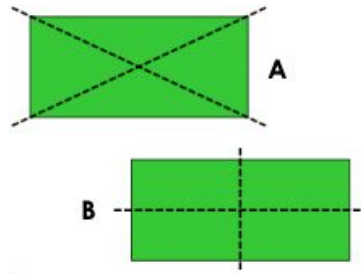
Model



Now you try... Which shape has the correct lines of symmetry marked?

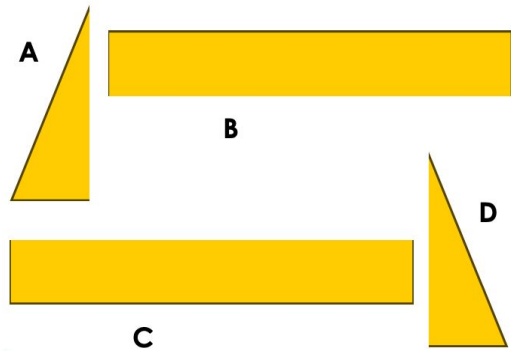


Shape B

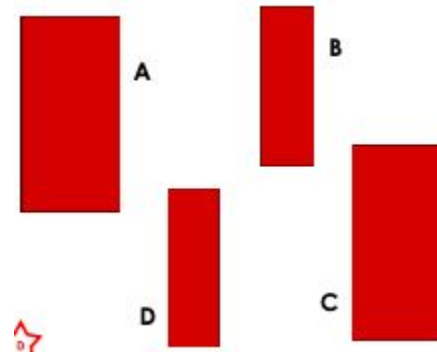


Shape B

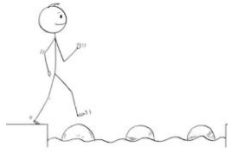
Match the halves that go together to make symmetrical shapes.



A and D; B and C



A and C; B and D



3 Numerator
How many equal parts do you have?

4 Denominator
How many equal parts is the whole divided into?

Lesson 05.06.20

LO: To identify lines of symmetry

Success Criteria:

- | |
|--------------------------------|
| 1. Look at your shape |
| 2. Identify a line of symmetry |
| 3. If you can, use a mirror |

Model:

1. 2. 3.4.

What is symmetry? When something is symmetrical one side is a mirror image of the other side. A line of symmetry is the line you can draw to show that both sides are the same. When you need to draw the other side of a symmetrical shape you can use a mirror to help you.



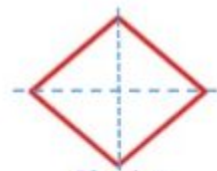
Square

4 lines of symmetry



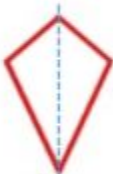
Rectangle

2 lines of symmetry



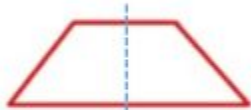
Rhombus

2 lines of symmetry



Kite

1 line of symmetry



Isosceles Trapezoid

1 line of symmetry



Trapezoid

No lines of symmetry



Parallelogram

No lines of symmetry



Equilateral Triangle

3 lines of symmetry



Isosceles Triangle

1 line of symmetry

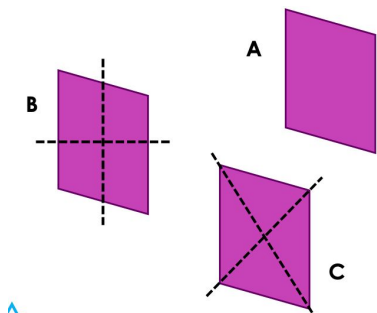
Year 4 Maths Main activity

Complete at least 2 columns, more if you can!

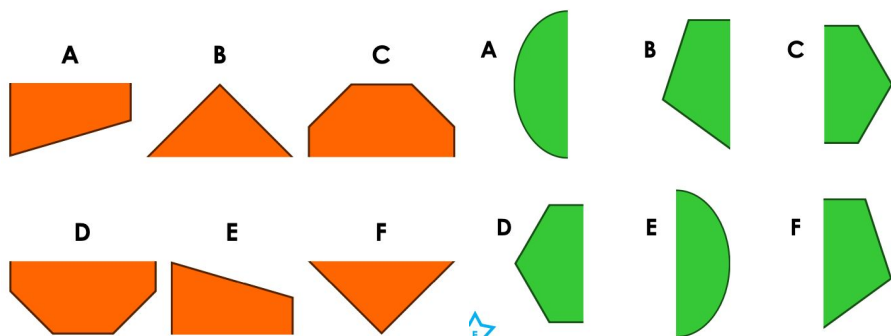
Task 1

Practice: Which shape has the correct lines of symmetry marked?

Shape A



Match the halves that go together to make symmetrical shapes.



A and E; B and F; C and D

A and E; B and F; C and D

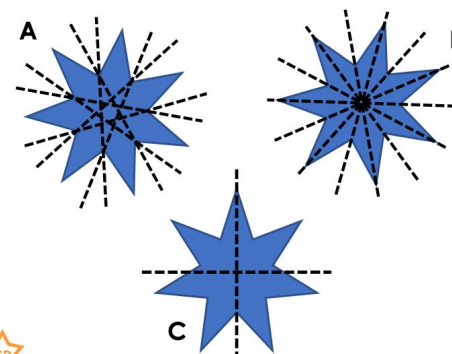
Draw a symmetrical shape on this line



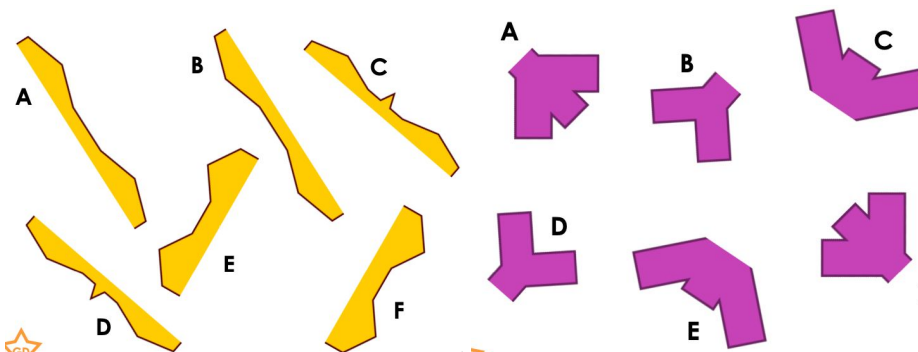
Task 2

Practice: Which shape has the correct lines of symmetry marked?

Shape B



Match the halves that go together to make symmetrical shapes.



A and B; C and D; E and F

A and F; B and D; C and E

Draw a symmetrical shape on this line



Task 3

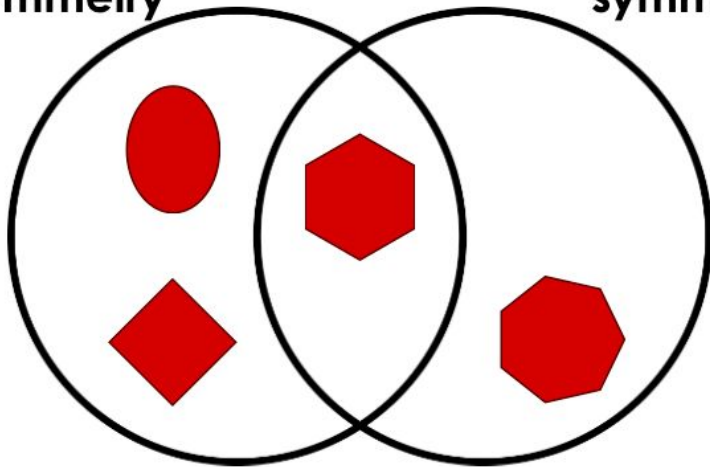
Reasoning

Explain your answers.

4a. Pauline has filled in this Venn diagram with shapes.

Vertical line of symmetry

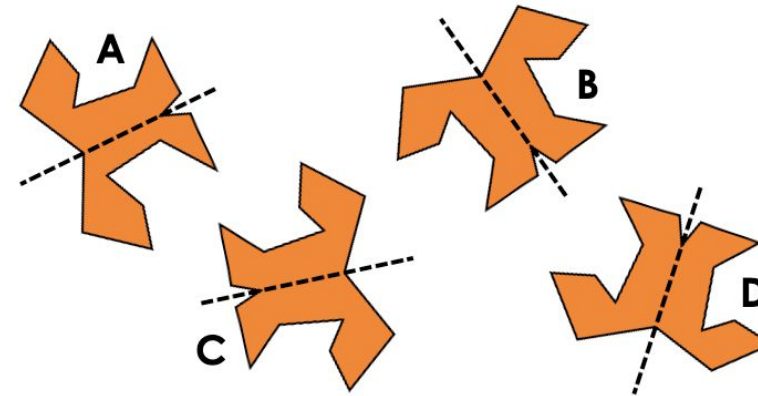
> 3 lines of symmetry



Find and explain her mistake.

4a. Pauline has put the rhombus in the 'Vertical line of symmetry' section when it also has more than 3 lines of symmetry in total. It should be in the central section instead.

9a. Here are 4 attempts at drawing reflections.



Find the reflections that are not symmetrical. Explain why.

9a. Shapes A and D are not symmetrical. Shape A has 2 sides which run almost parallel to the line of symmetry; the side below the line is closer to the line of symmetry than the one above. The protrusion at the bottom of shape D is slightly smaller on the right-hand side of the line of symmetry than the left.

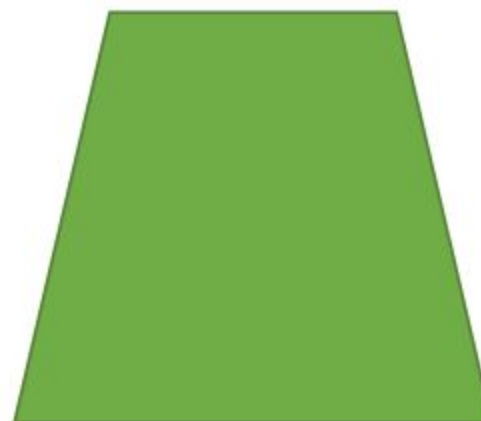
Task 4

Problem solving

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.