

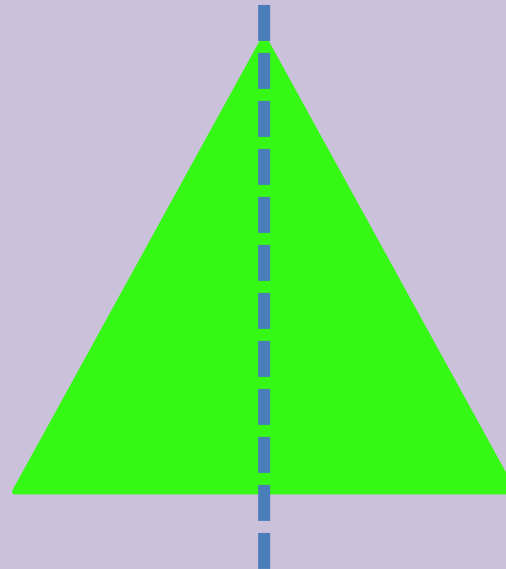
LO: I can identify a line of symmetry in  
2D shapes



# Symmetry

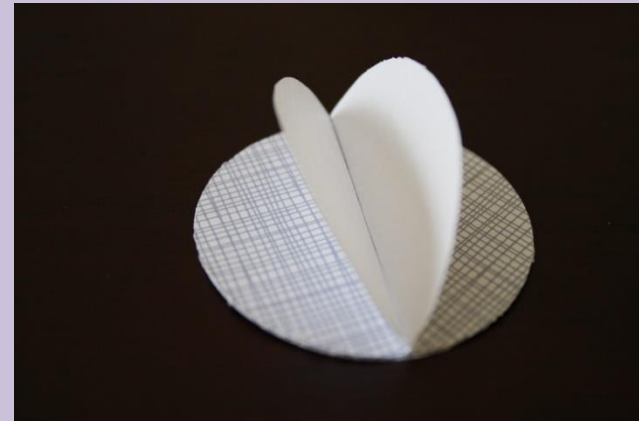
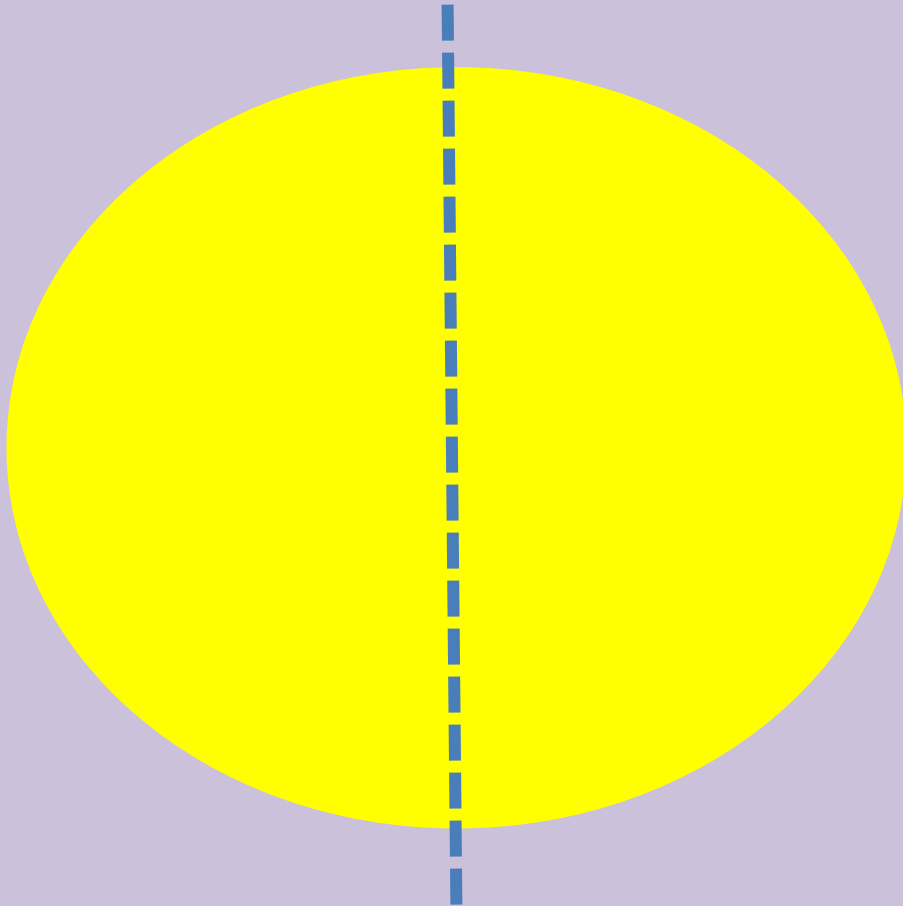
**Symmetry** is where one half of the shape is the **reflection** of the other half. This means you could fold the shape and have **both halves match exactly**.

Fold your shapes in half and if all the sides **match exactly** the fold line is your **line of symmetry**.



# Symmetry

A circle can be folded in half **exactly** so we can say a property of the circle is that it is a **symmetrical** shape.



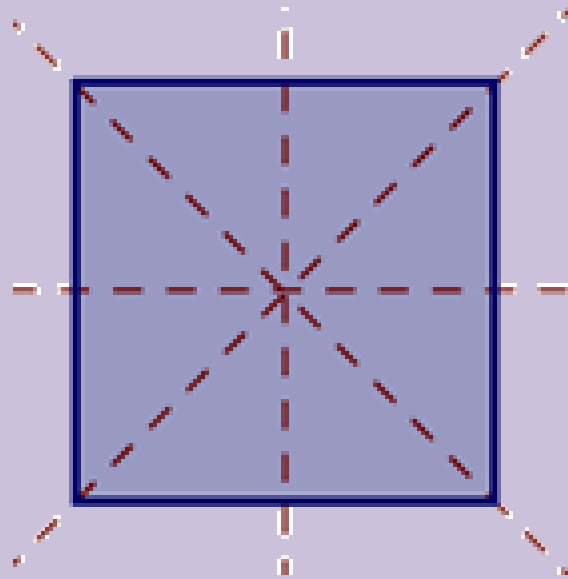
# Symmetry

You can also use a mirror to find a **line of symmetry**.  
Place the mirror in the middle and check that each side is the same.



# Symmetry

You can fold a square in half in more than one way. Each of the dotted lines is a different way to fold the square in half.



Each one of these lines is a **line of symmetry** so a square has four lines of symmetry.

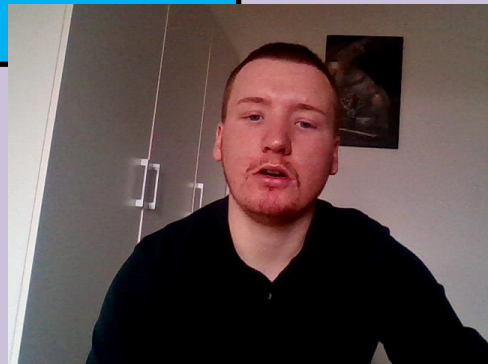
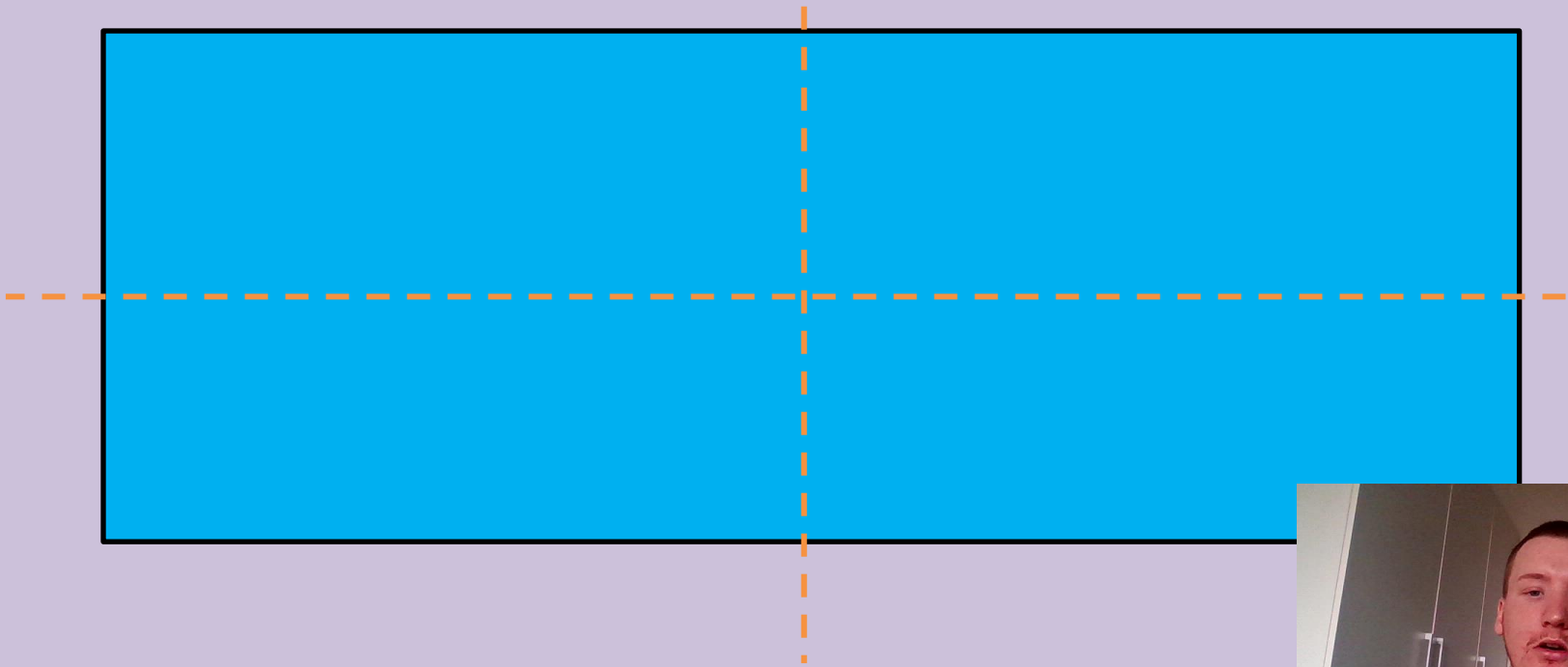
# Practise

Can you find more than one **line of symmetry** for a rectangle?



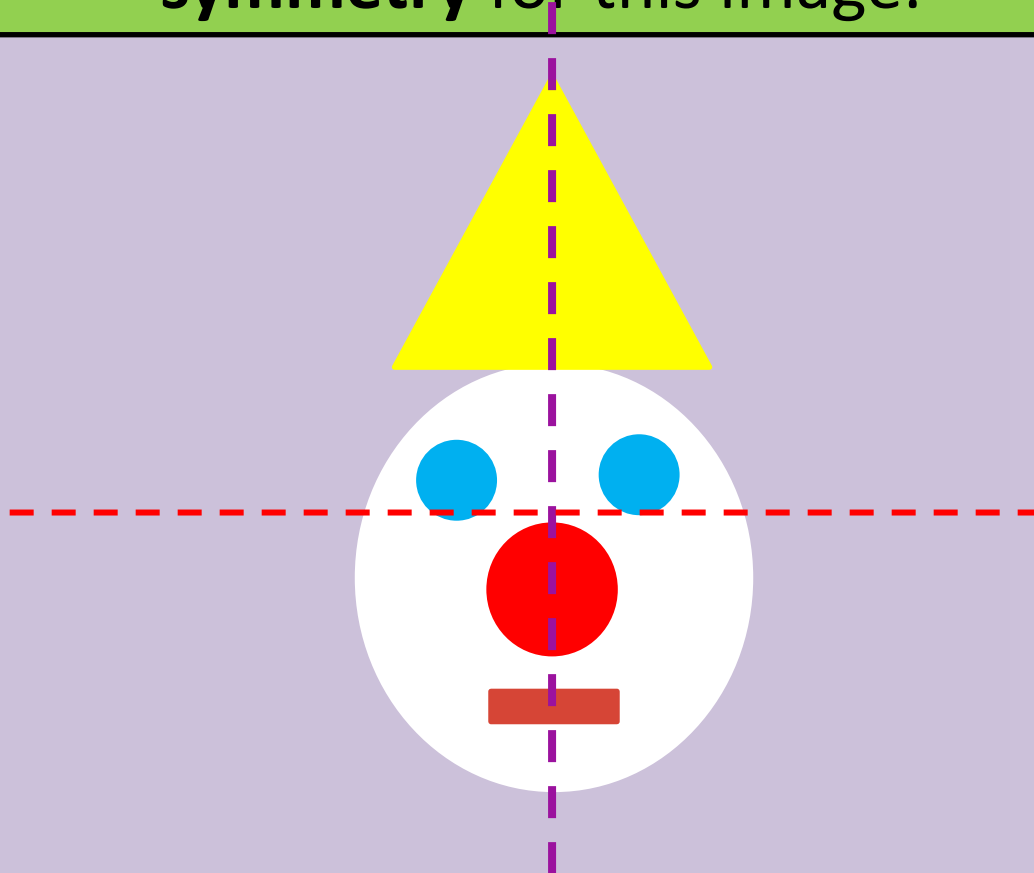
# Practise

Can you find more than one **line of symmetry** for a rectangle?



# Symmetry

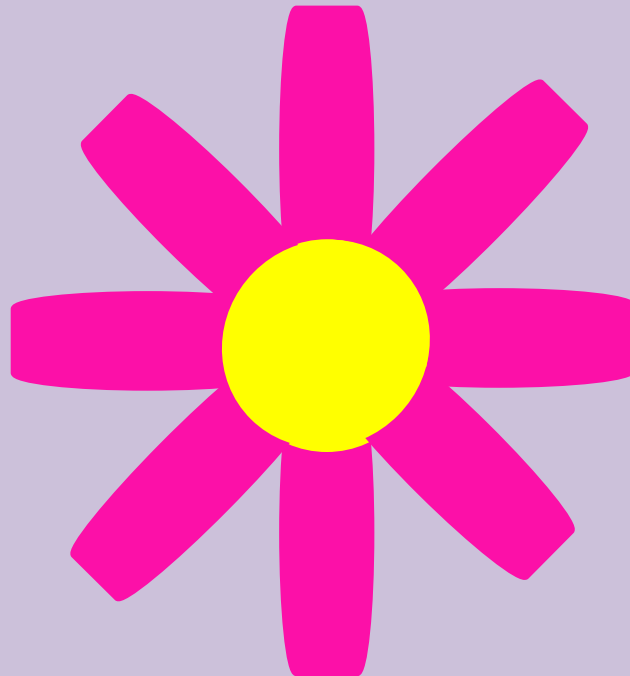
We can also find the **line of symmetry** in images. Here is a clown face made from shapes. We can draw a line, using a ruler, down the middle to show the **line of symmetry** for this image.





# Practise

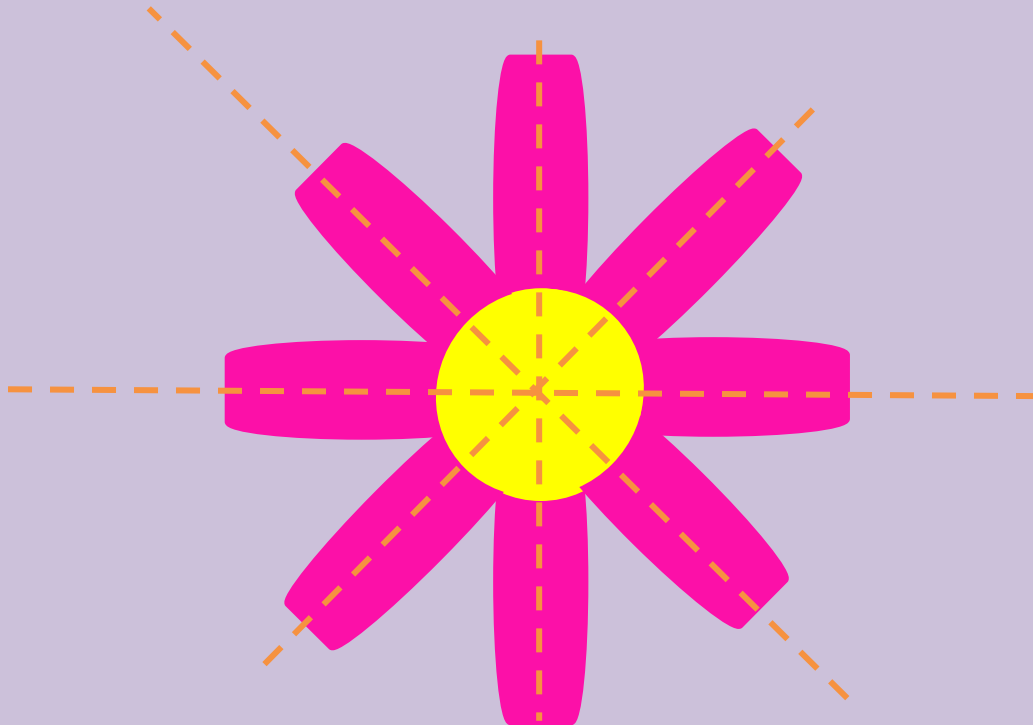
Where would you draw the **line of symmetry** for this image?



Is there only **one** line of symmetry?

# Practise

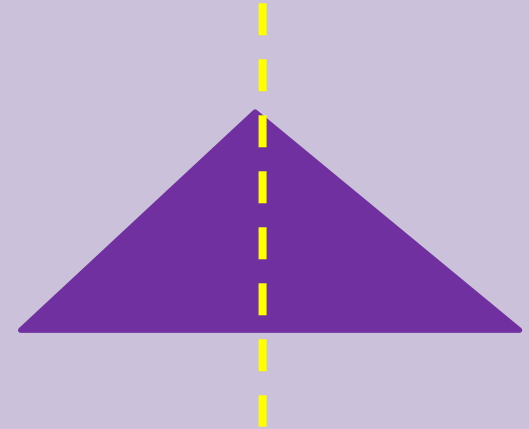
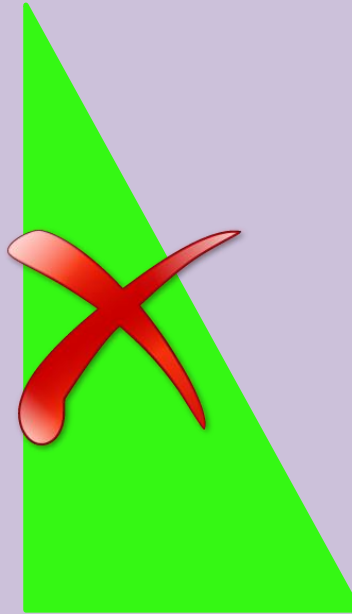
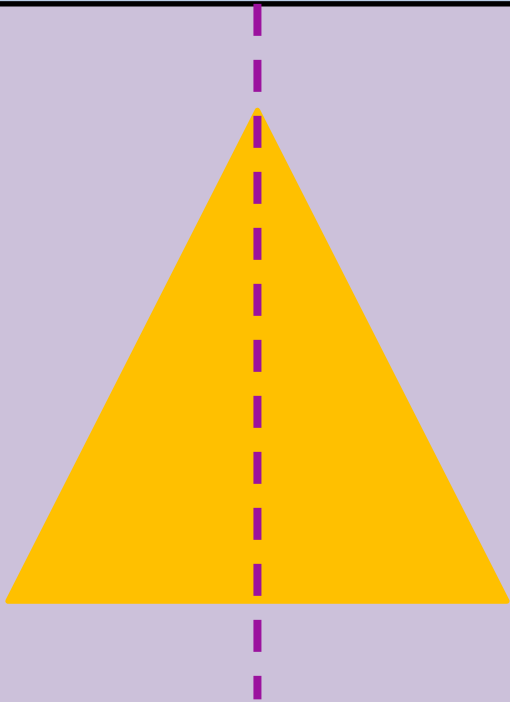
Where would you draw the **line of symmetry** for this image?



Is there only **one** line of symmetry?

# Symmetry

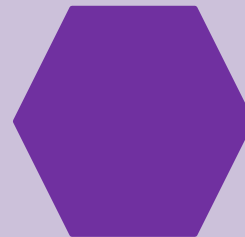
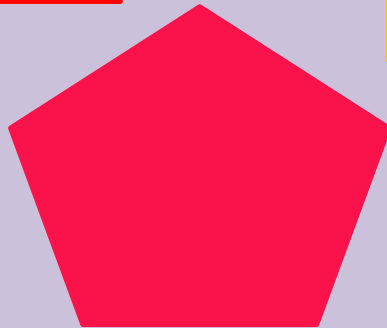
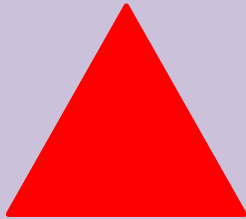
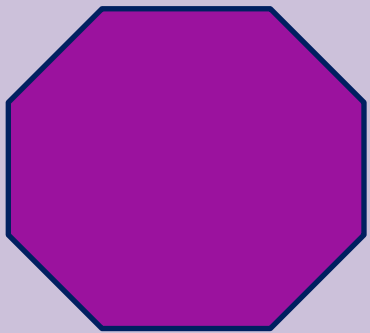
Look carefully at these triangles. Do they all have at least one **line of symmetry**?



If all of the sides of a triangle have a **different length** there is **no** line of symmetry.

# Symmetry

Regular **polygons** (where all of the sides are equal in length) will always have **at least one line of symmetry**.



Can you see **more than one line of symmetry** in any of these shapes?

## Show Me Tasks

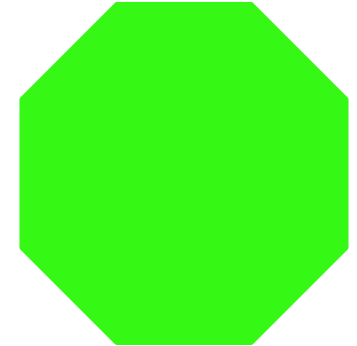
### M6b. Can identify a line of symmetry in 2D shapes

Commissioned by The PiXL Club Ltd.  
April 2018

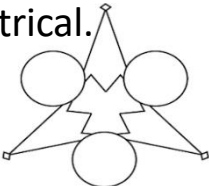
This resource is strictly for the use of member schools for as long as they remain members of The PiXL Club. It may not be copied, sold nor transferred to a third party or used by the school after membership ceases. Until such time it may be freely used within the member school. All opinions and contributions are those of the authors. The contents of this resource are not connected with nor endorsed by any other company, organisation or institution.

© Copyright The PiXL Club Limited, 2018

Can you draw at least one line of symmetry for these two shapes?



Tick whether each sentence is true (T) or false (F).

	T	F
Only some circles are symmetrical.		
A square has more than one line of symmetry.		
This pattern is not symmetrical. 		

Jamal has placed a mirror on the vertical line of symmetry. This is what he sees. Complete the other half of the shape.

