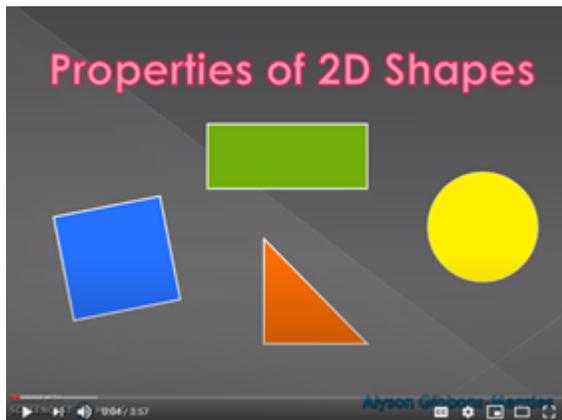


L.O: I am learning to identify angles in shapes

Today you will learn how to apply your knowledge of properties of shapes to find missing angles. You will use square grids to help you reason about lengths and angles. You will learn to identify right angles and understand how many degrees half a right angle is.

Answer the questions on the separate worksheet that comes with this assignment. Turn the completed work in so that the teacher can mark and comment on your work.

Watch the video below to revise the properties of 2D shapes.



<https://www.youtube.com/watch?v=FDrhL0g1Es8>

We can use grids to identify angles in shapes.



In this shape there are:

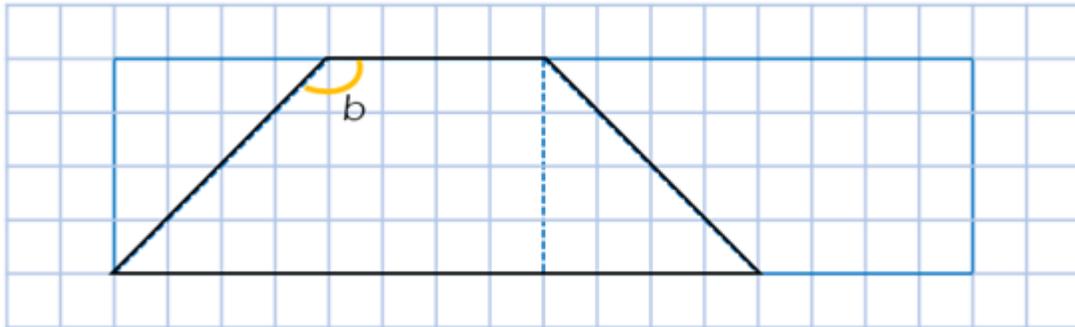
- Acute angles
- Right angles
- Obtuse angles.

Can you spot them?

- There is a **right angle** on the triangle at the right side of the shape.

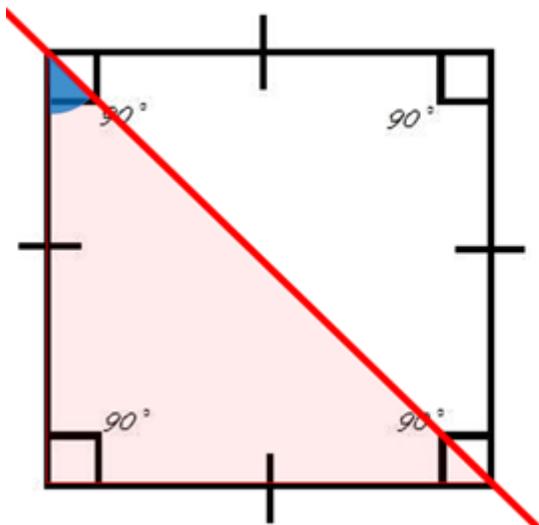


- Angle a is an **acute angle**. It measures **45 degrees** because we can see that it is **half of a right angle** (90 degrees)



- Angle b is an **obtuse angle**. It measures **135 degrees** because $45 + 90 = 135$.

Let's Practise



If I know that there are 4 90° degree angles fold a square in half diagonally to make a triangle.

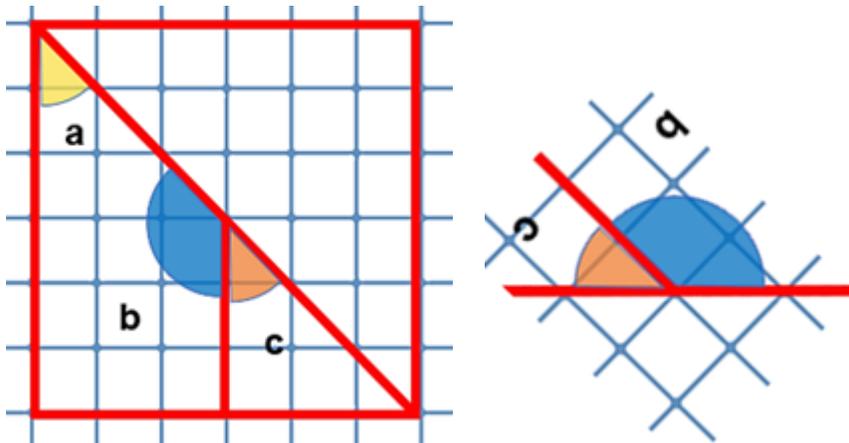
- What will the size of the blue angle?
- What about the size of each of the angles in the triangle?

Can you explain why?

Each blue angle will be 45 degrees because it is half a right angle.

The triangle is half a square. We know that all its angles add up to 180 degrees. Look at the pink triangle. It is a right angle triangle, so one of its angles is 90 degrees. The marks on two sides also tell us that those two sides are equal, therefore their angles will also be equal. $180 - 90 = 90$. The two remaining angles MUST add up to 90, and because they are both the same, we can divide 90 by two. Therefore they are 45 degrees each.

Now using what you know about angles along a straight line, calculate the size of angle b .



Remember $b + c = 180$

Now go to the worksheet for today's tasks and pick your challenge!