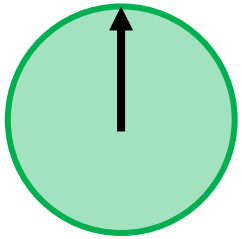
White Rose Maths

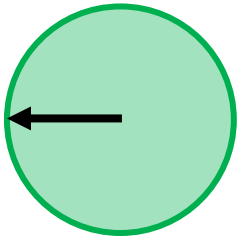
Year 3 - Summer - Block 3

Properties of Shape

The arrow on a spinner started in this position.



After making a turn it ended in this position.



Jack says,

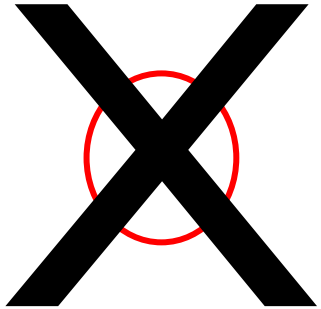
The arrow has moved a quarter turn anti-clockwise.

Alex says,

The arrow has moved a three-quarter turn clockwise.

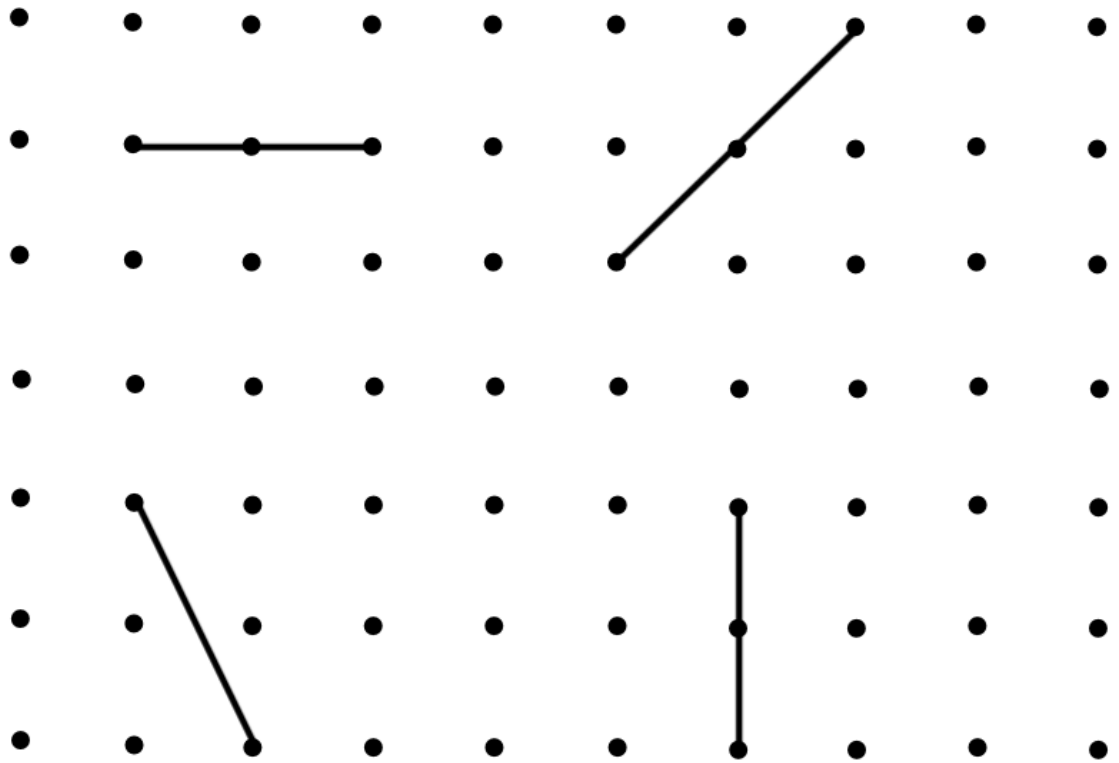
Who do you agree with?

The letter ‘X’ has four angles.



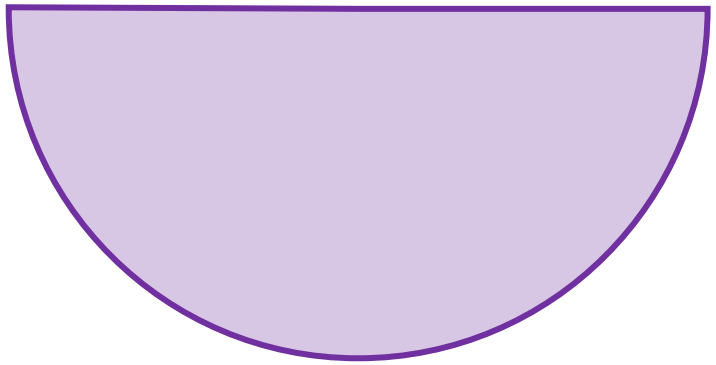
Write your name in capital letters.
How many angles can you see in each letter?
How many angles are there in your full name?

Draw a line along the dots to make a right-angle with each of these lines:



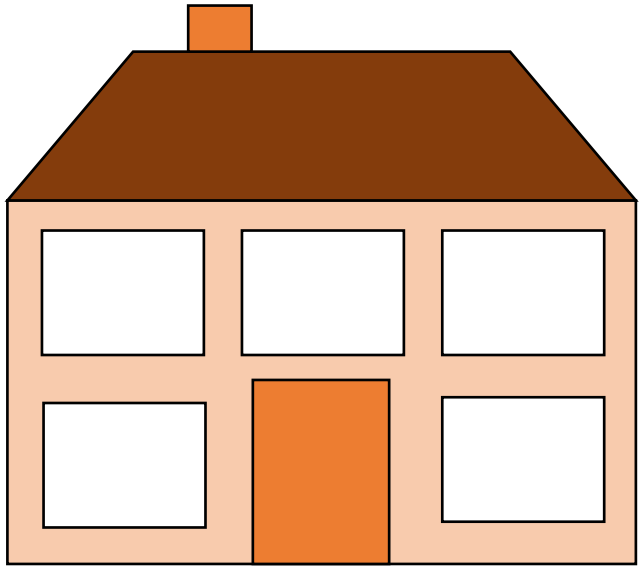
True or False?

This shape has two right-angles.



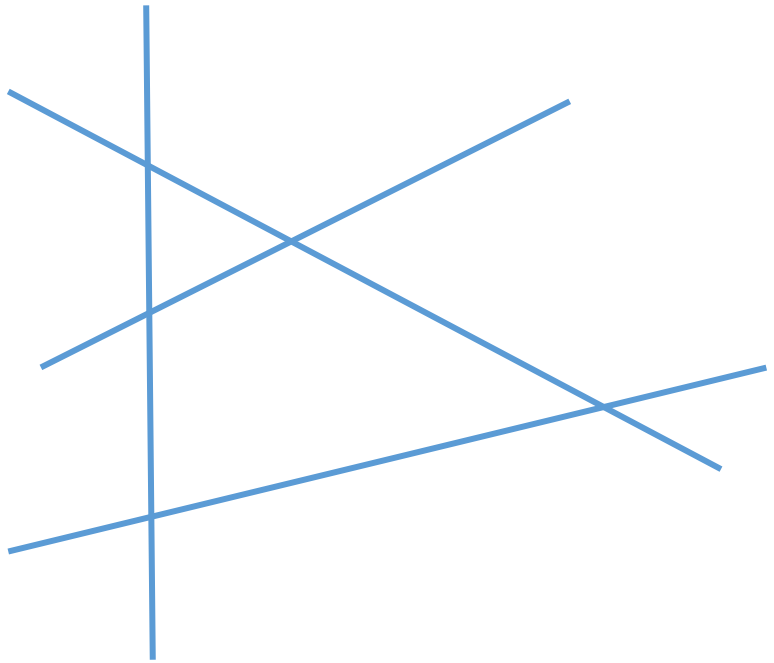
Explain your answer.

How many right angles can you see in this image?



Can you create your own image with the same number of right angles?

Label the acute angles (A) and obtuse angles (O) on the diagram below



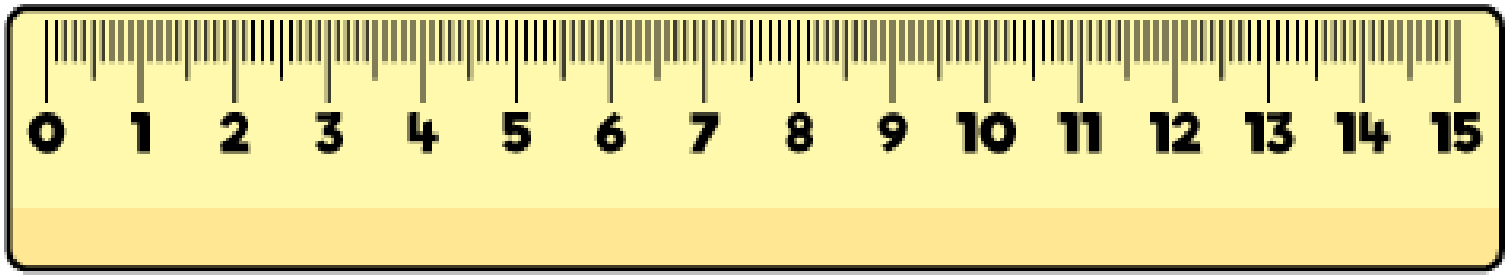
Teddy describes a shape.

My shape has 3 right angles and 2 obtuse angles.

What could Jack's shape look like?

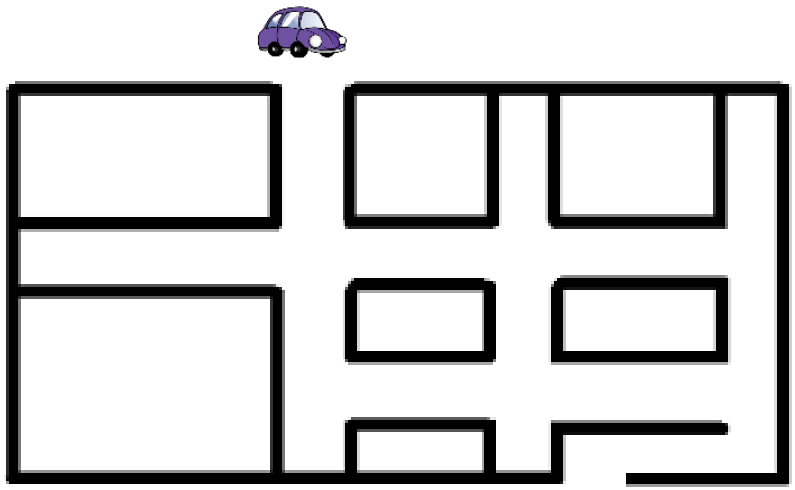
Describe a shape in terms of it's angles for a friend to draw.

Alex measures the line.



She says it is 10 cm 4 mm

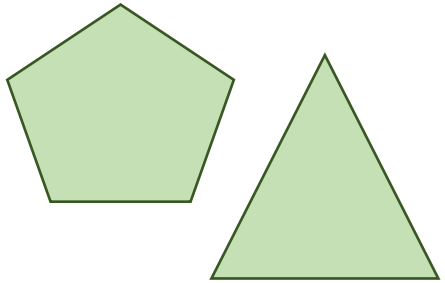
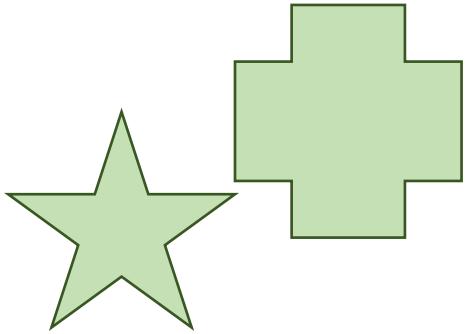
Is Alex correct?
Explain why.



Use straight lines to show the route the car could take to get out of the maze.

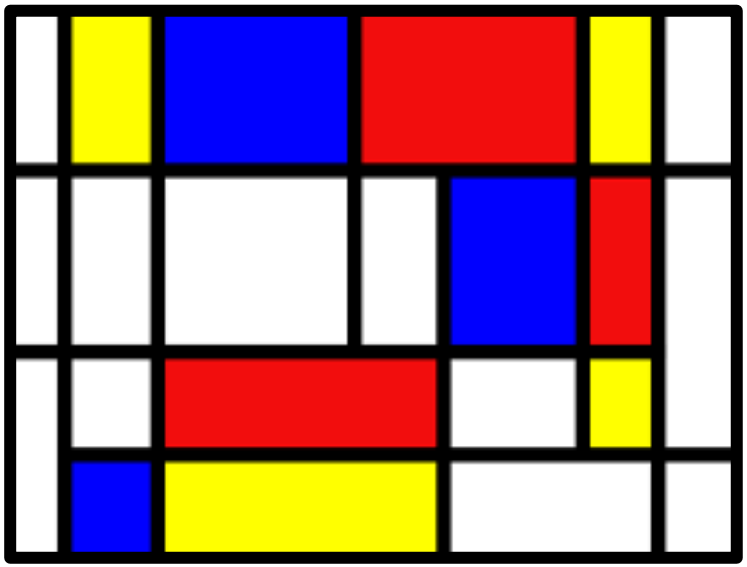
Work out the length of the route to the nearest cm

Is this the shortest route?

Horizontal line of symmetry	Vertical line of symmetry	Horizontal and vertical lines of symmetry
		

Eva completes the table by drawing shapes.

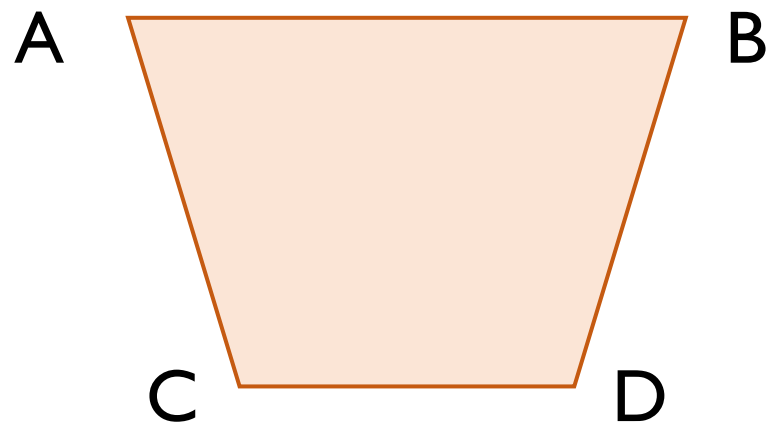
Can you spot and correct her mistake?



How many horizontal and vertical lines can you spot in this image by Mondrian?

Create your own piece of art work using only horizontal and vertical lines.

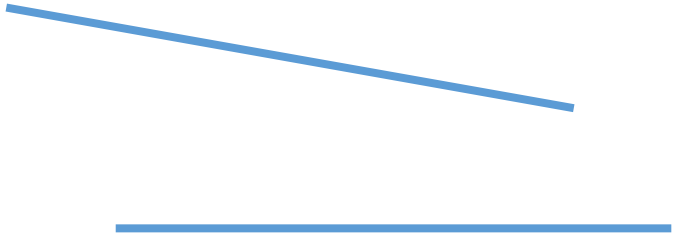
True or False?



Line AB is parallel to line CD.
Line AC is parallel to line BD.
Line AC is perpendicular to line CD.

Redraw the shape so that line BD is perpendicular to line CD.

These lines are NOT parallel.

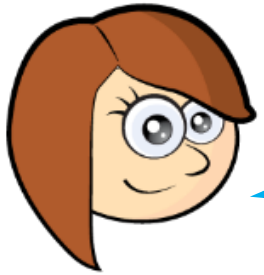


Convince me.

Mark 3 sets of parallel lines and 3 sets of perpendicular lines in this flag.

Design your own flag containing parallel and perpendicular lines.

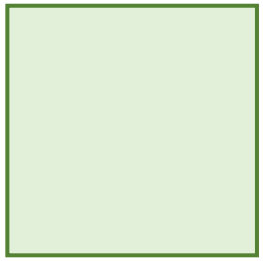
Rosie describes a 2-D shape.



My shape has 2 pairs of parallel sides.
The lengths of the sides are not all equal.

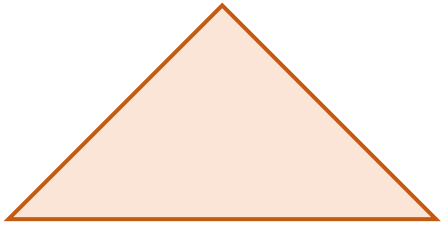
Draw the shape that Rosie is describing.

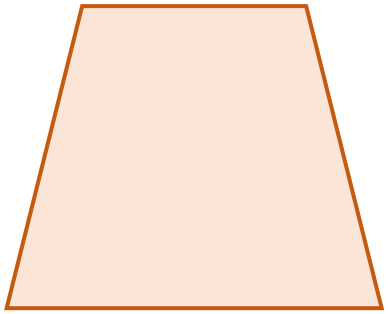
Could this square be Rosie's shape?

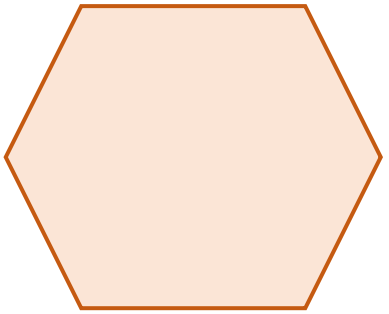


Explain why.

What is the same and what is different about these shapes?







Draw at least one shape in each section of the diagram.

	At least one right angle	No right angles
4 sided		
Not 4 sided		

Mo has a 3-D shape, he says,

One face of my 3-D shape is a square.

What could Mo's shape be?

Alex says,

All 3-D shapes are prisms.

Do you agree with Alex?

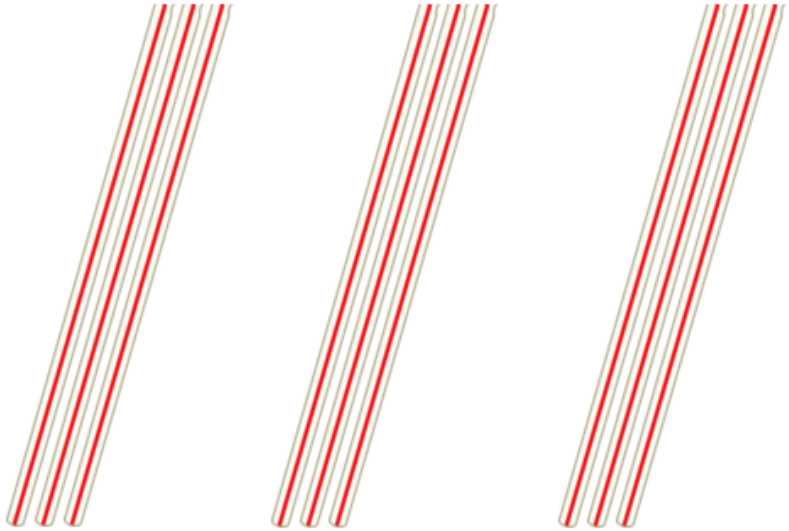
Explain why

Sort a selection of 3-D shapes using the criteria in the table.

	At least one triangular face	**No triangular faces**
Prism		
Not a prism		

Change the headings of the table and re-sort your shapes.

I have 9 straws and 6 balls of Play-Doh.



What 3-D shape can I create using all of the straws and Play-Doh?

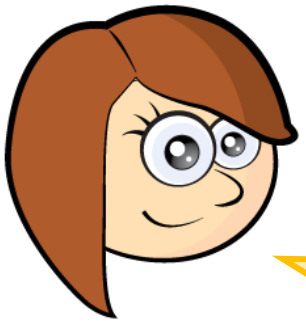
Have a go at making it.

True or false?

- You can cut out lots of equal squares and make a 3-D shape from them.

- You can cut out some circles and rectangles and make a 3-D shape from them.

Rosie says,



I can create a model of a square-based pyramid using 3 straws and 3 balls of Play-Doh.

Explain the mistake Rosie has made.

How many straws and balls of Play-Doh would you need to create a pyramid?