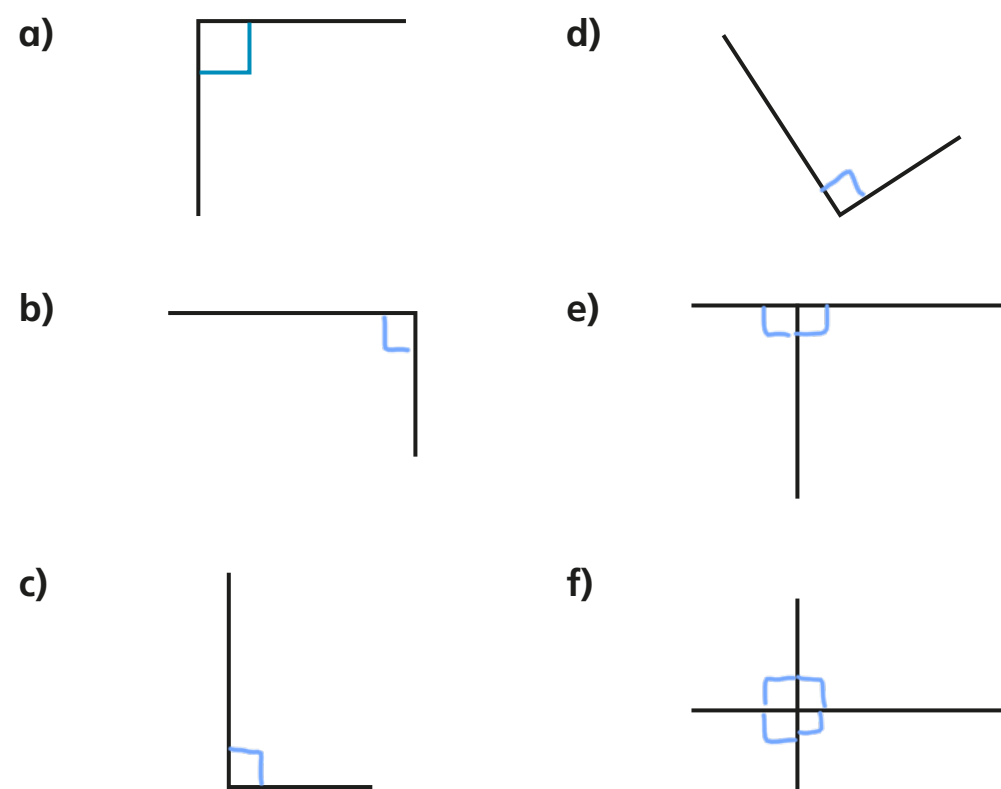


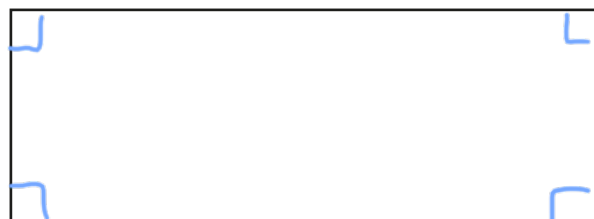
Right angles in shapes

- 1 There is at least one right angle in each picture.
Mark the right angles on the pictures.
The first one has been done for you.

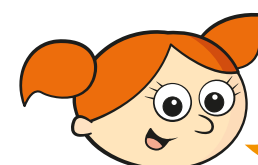


Compare answers with a partner.

- 2 A rectangle has four right angles.
Mark the right angles on the rectangle.



- 3 Alex and Jack are identifying right angles.



Both of the angles
are right angles.

Alex



I disagree. The first
one is a right angle but the
second one is a left angle because
it is on the left of the line.

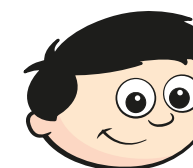
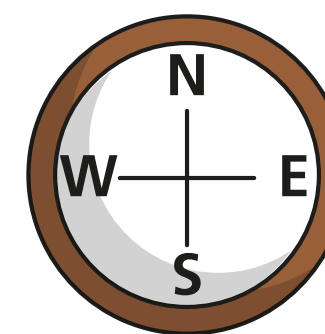
Jack

Who do you agree with?

Talk about it with a partner.

Alex

- 4 Dexter is facing north.
He turns a quarter turn.



This is the same as
one right angle.

Do you agree with Dexter? Yes

Talk about it with a partner.

5 Complete the sentences.

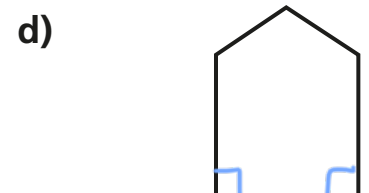
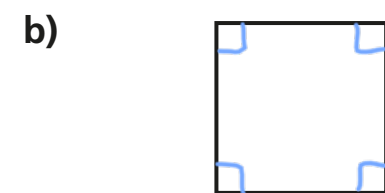
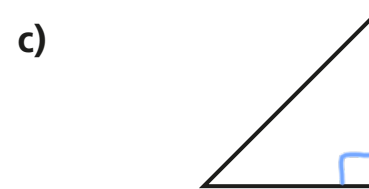
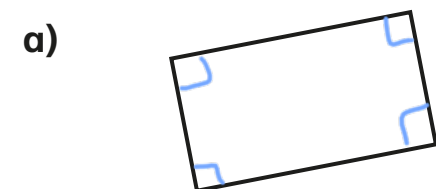
A quarter turn is equal to 1 right angle.

A half turn is equal to 2 right angles.

A three-quarter turn is equal to 3 right angles.

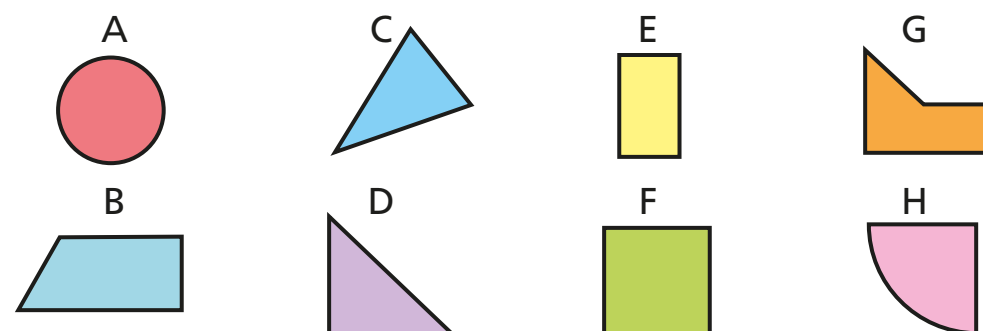
A full turn is equal to 4 right angles.

6 Draw the right angles on each shape.



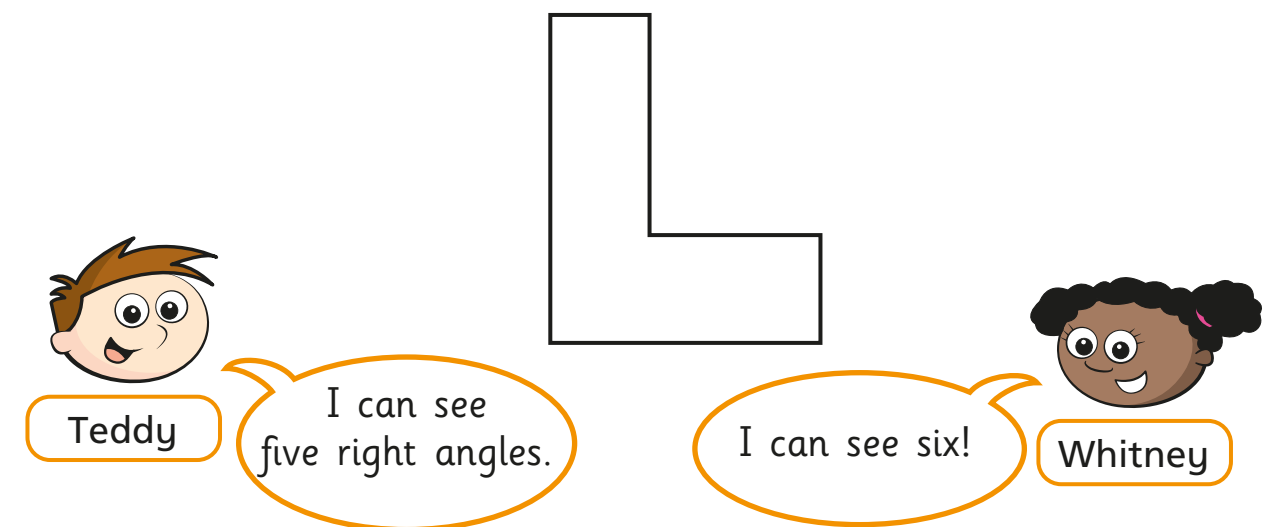
7 Look at the number of right angles in each shape.

Sort the shapes into the table.



0 right angles	1 right angle	2 right angles	3 right angles	4 right angles
A C	D H	B	G	E F

8 Teddy and Whitney are identifying right angles.



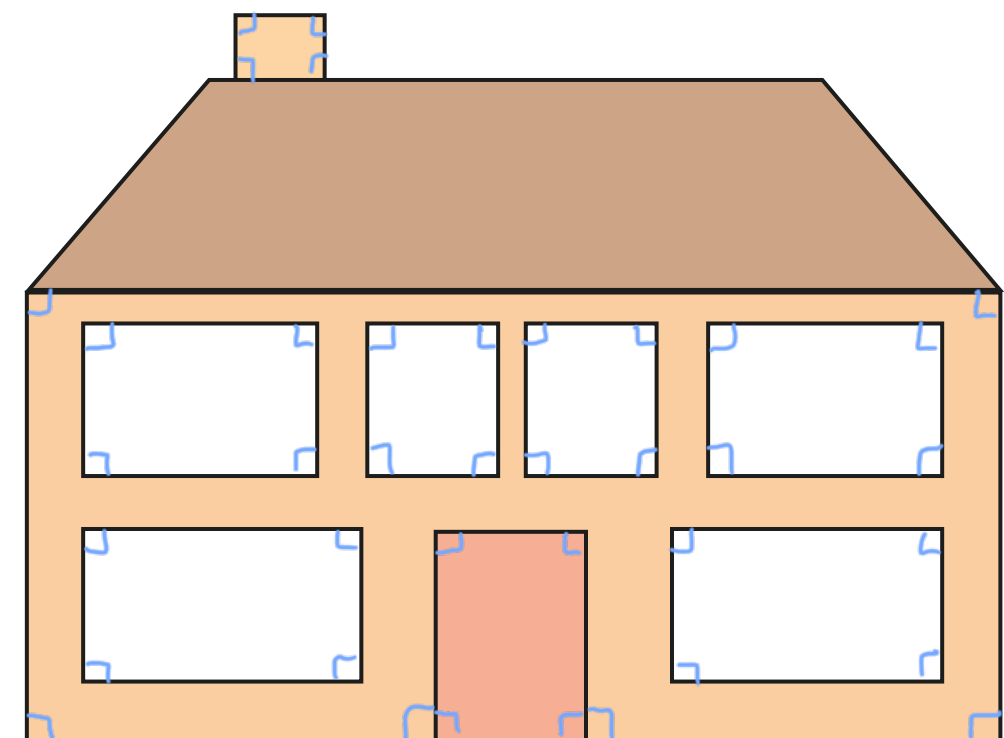
Who do you agree with?

Whitney

Draw on the shape to show your thinking.

9 How many right angles can you find in the picture?

Mark them on the picture.



Create your own problem like this for a partner.



Compare angles

1 Here are some angles.

a) Circle the angle that is greater than a right angle.



b) Circle the angle that is less than 90 degrees.



2 Draw three different angles that are less than a right angle.

Various answers.

Compare answers with a partner.

Complete the sentence.

These are all examples of acute angles.

3 Draw two different obtuse angles.

Various answers.

Compare answers with a partner.

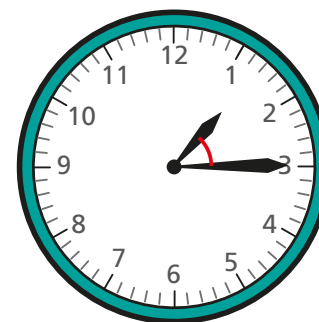
Complete the sentence.

Obtuse angles are greater than 90 degrees

but less than 180 degrees.

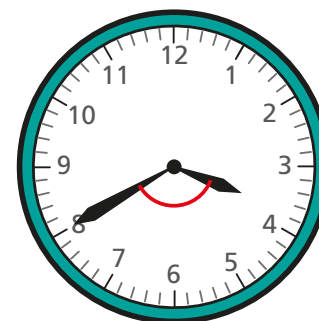
4 Is the angle between the hands of the clock acute or obtuse?

a)



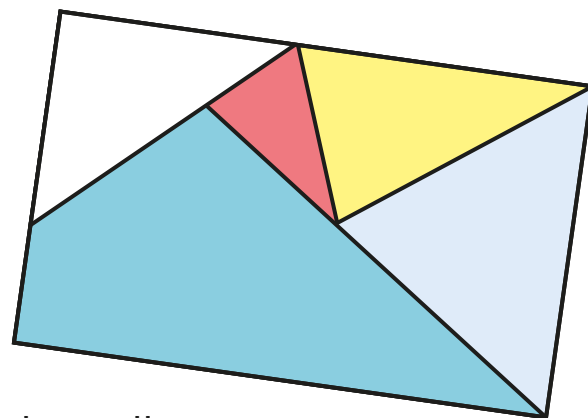
acute

b)

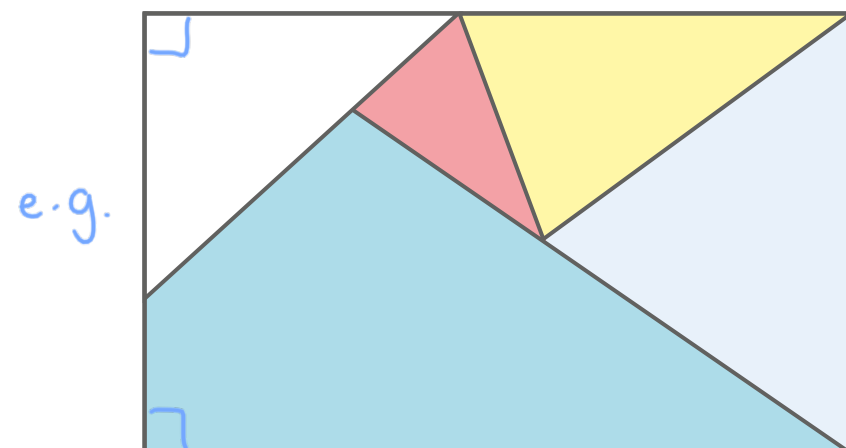


obtuse

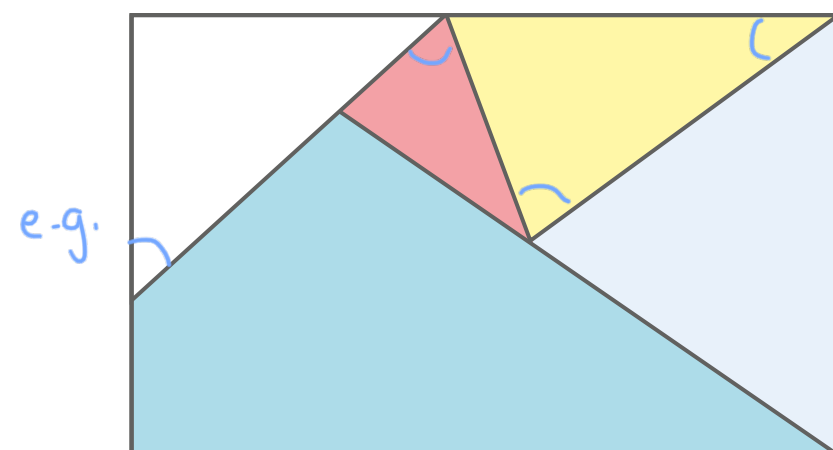
- 5 Here is a piece of wallpaper.



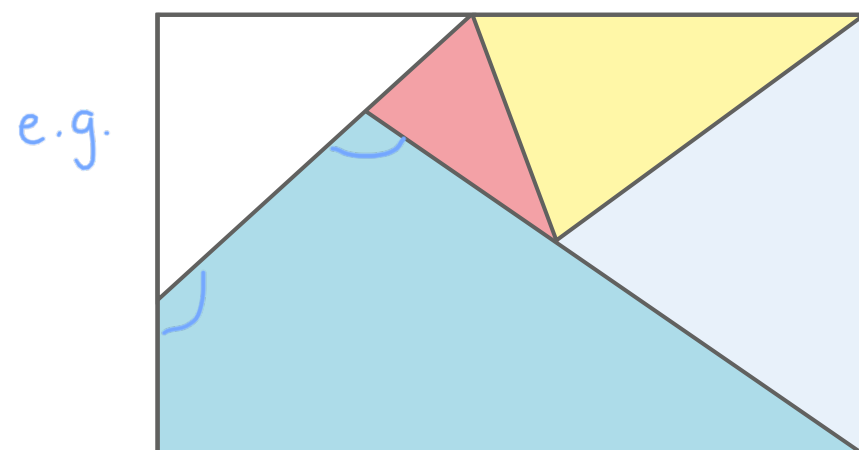
- a) Mark two right angles on the wallpaper.



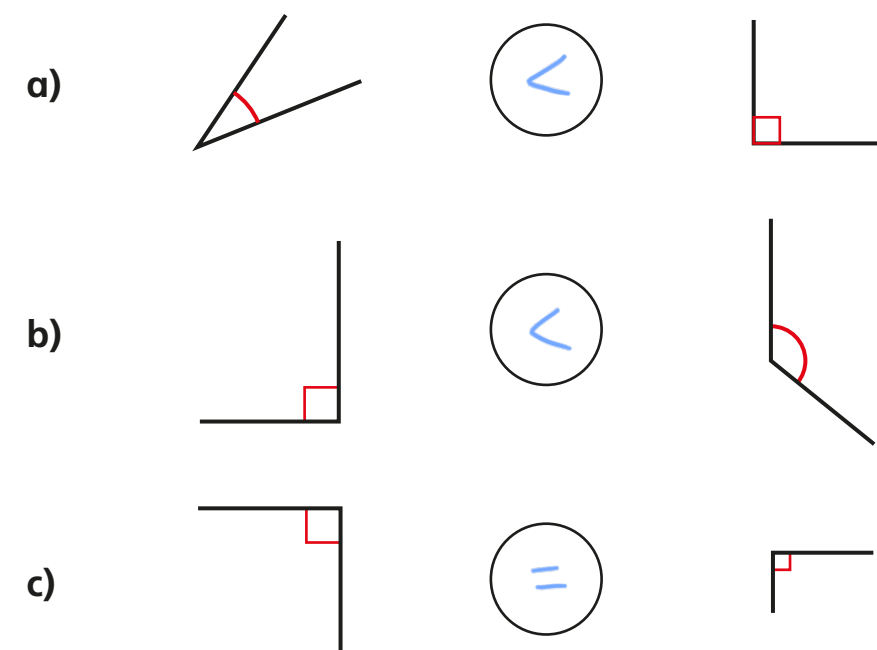
- b) Mark four acute angles on the wallpaper.



- c) Mark two obtuse angles on the wallpaper



- 6 Write $<$, $>$ or $=$ to compare the sizes of the angles.



- 7 Draw a shape that has one right angle, two acute angles and one obtuse angle.

e.g.



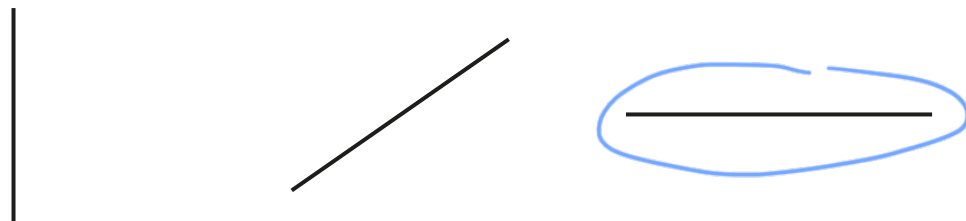
Compare answers with a partner.

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

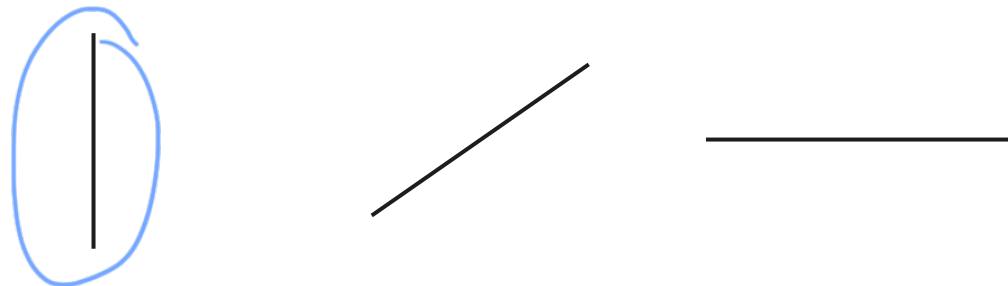


Horizontal and vertical

- 1 Circle the line that is horizontal.



- 2 Circle the line that is vertical.

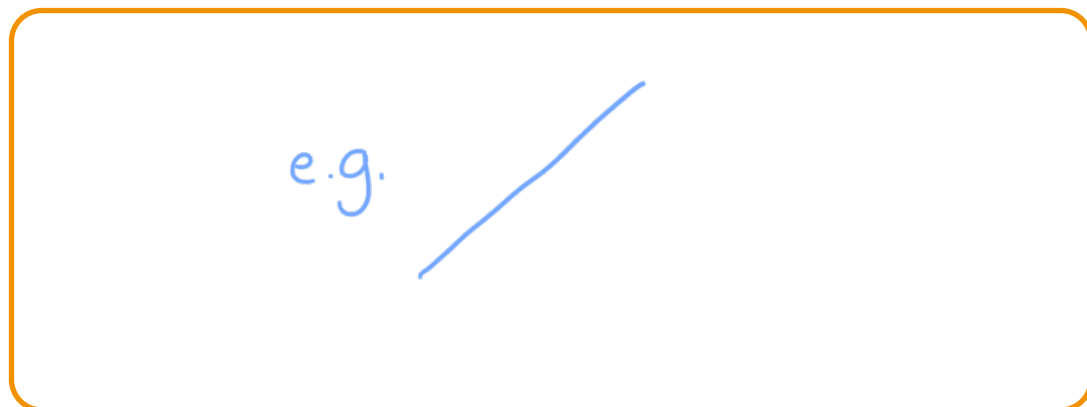


- 3 Use a ruler to draw the lines.

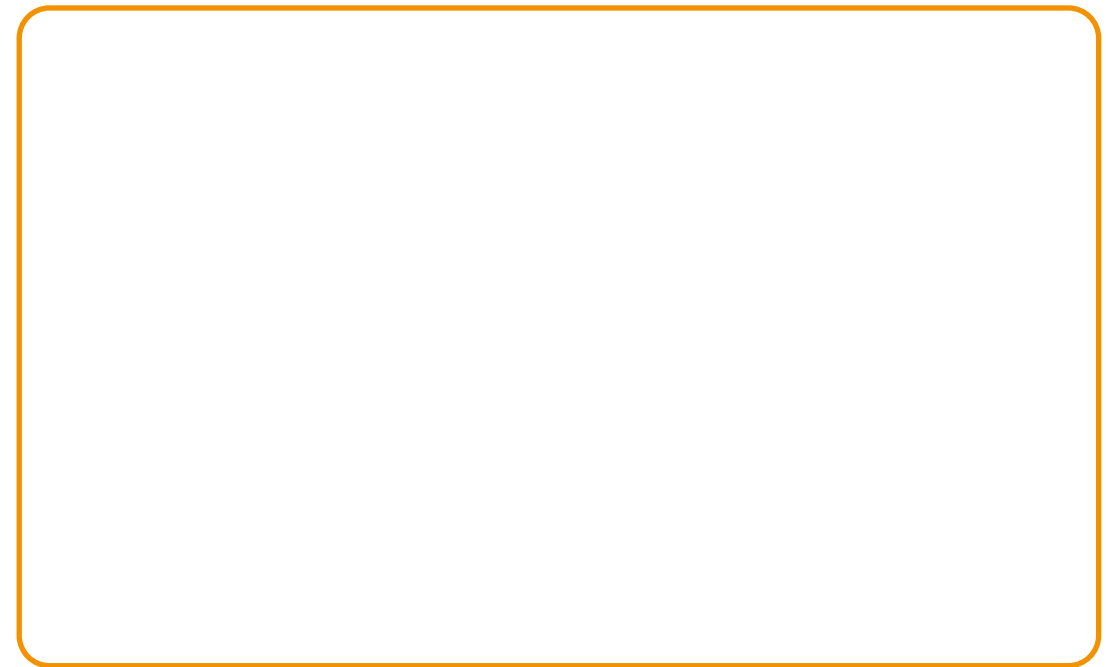
- a) Draw a horizontal line 5 cm long.



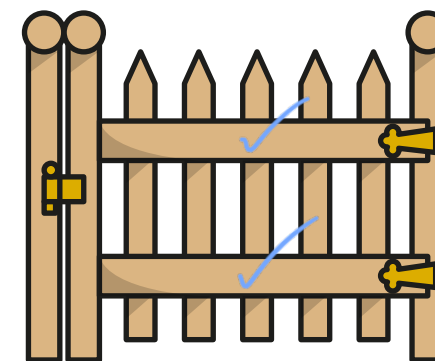
- b) Draw a line that is not horizontal or vertical.



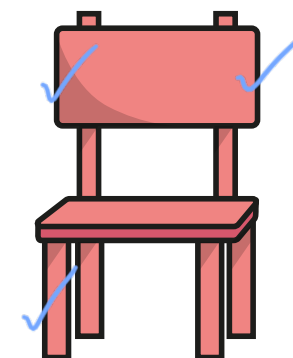
- c) Draw a vertical line 5 cm long.



- 4 Tick two horizontal lines on the gate.

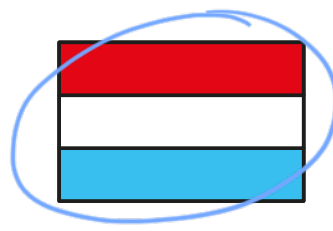
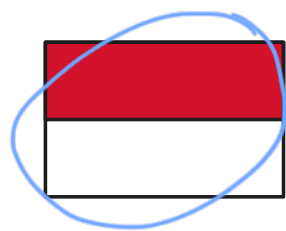


- 5 Tick three vertical lines on the chair.

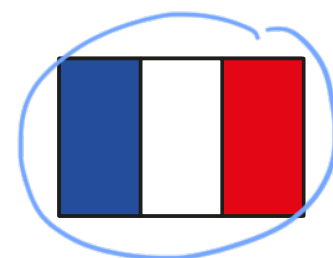


6 Here are some flags.

a) Circle the flags that have horizontal stripes.



b) Circle the flags that have vertical stripes.



c) Is the statement true or false?

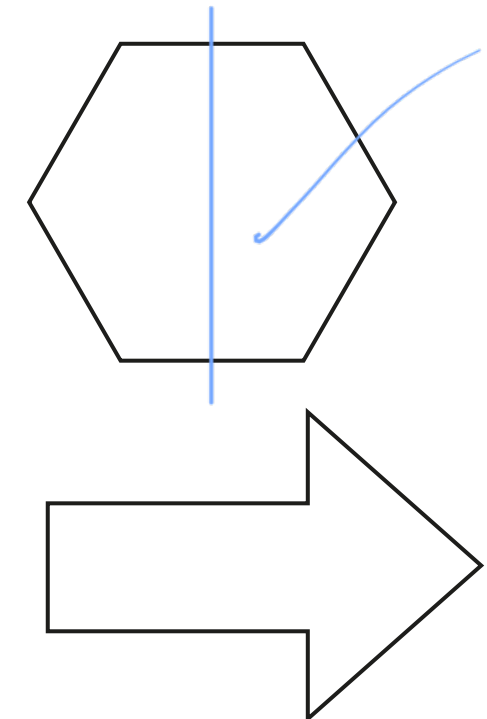
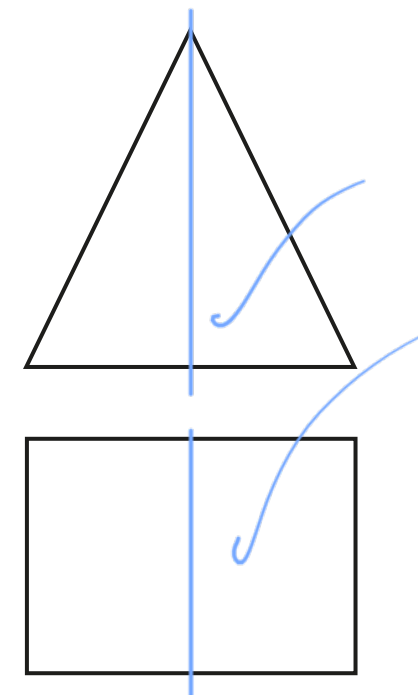
This flag has vertical and horizontal stripes.



false

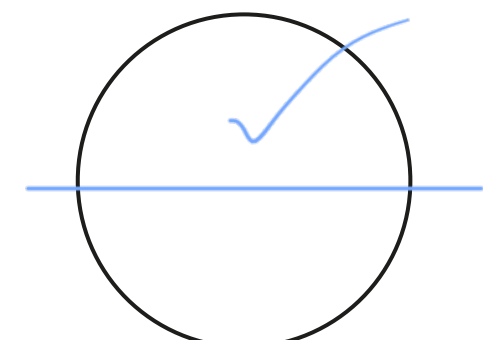
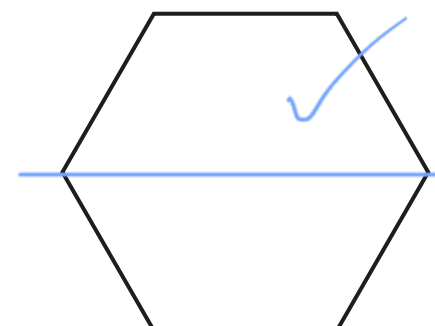
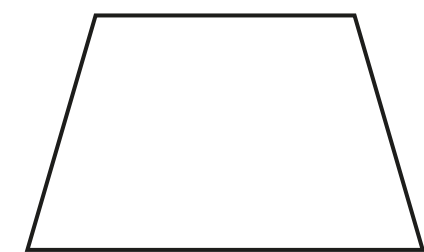
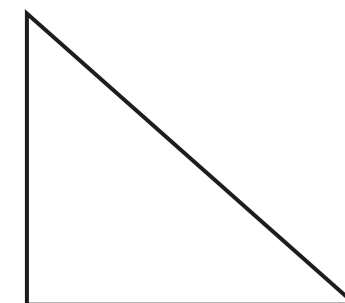
7 Tick the shapes that have a vertical line of symmetry.

Draw on the shapes to show the line of symmetry.



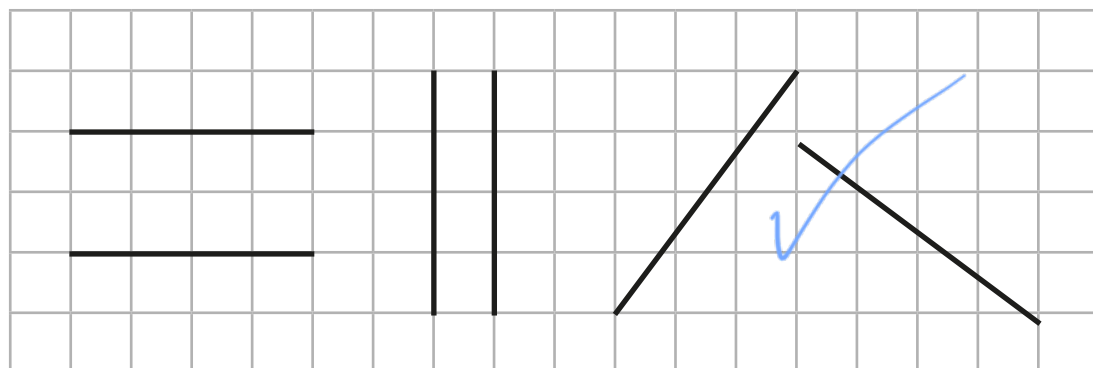
8 Tick the shapes that have a horizontal line of symmetry.

Draw on the shapes to show the line of symmetry.



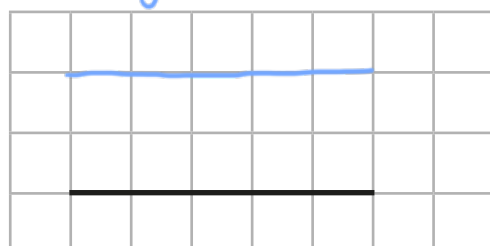
Parallel and perpendicular

- 1 Tick the pairs of lines that are not parallel.

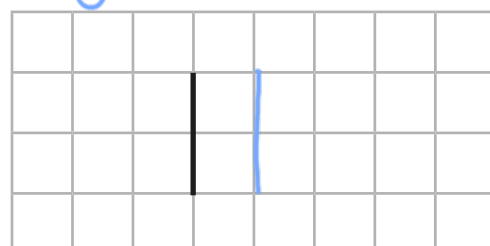


- 2 Here are two lines.
Draw a line that is parallel to each.

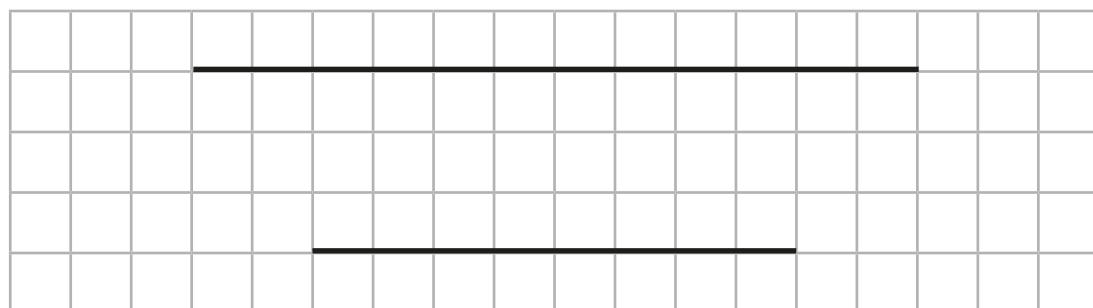
a) e.g.



b) e.g.



- 3 Amir says that the lines are not parallel because they are different lengths.

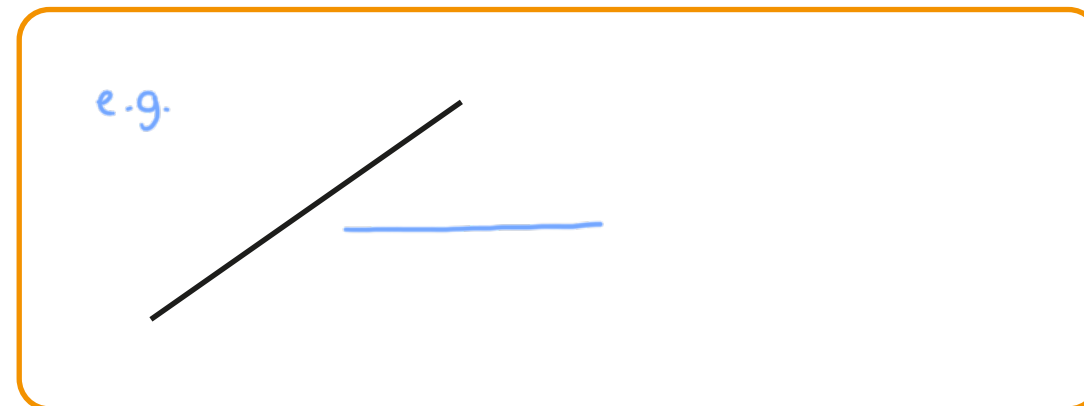


Is Amir correct? No

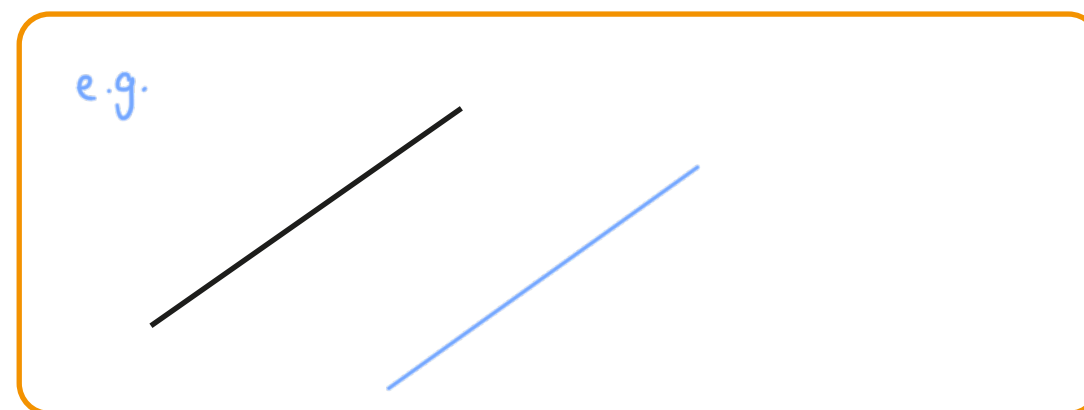
Why?



- 4 a) Here is a line. Draw a line that is **not** parallel to it.

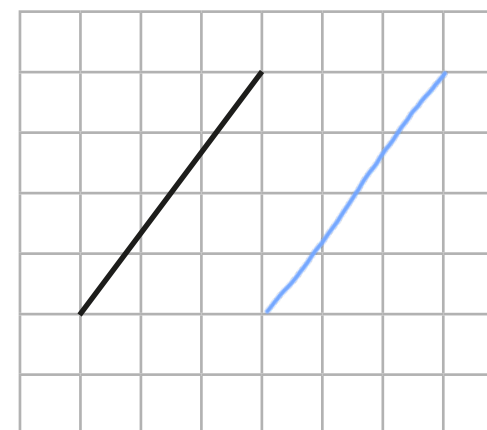


- b) Here is a line. Draw a line that is parallel to it.

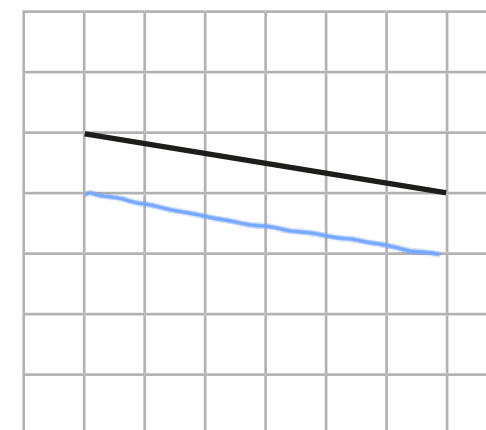


- 5 Here are two lines.
Draw a line that is parallel to each.

a)



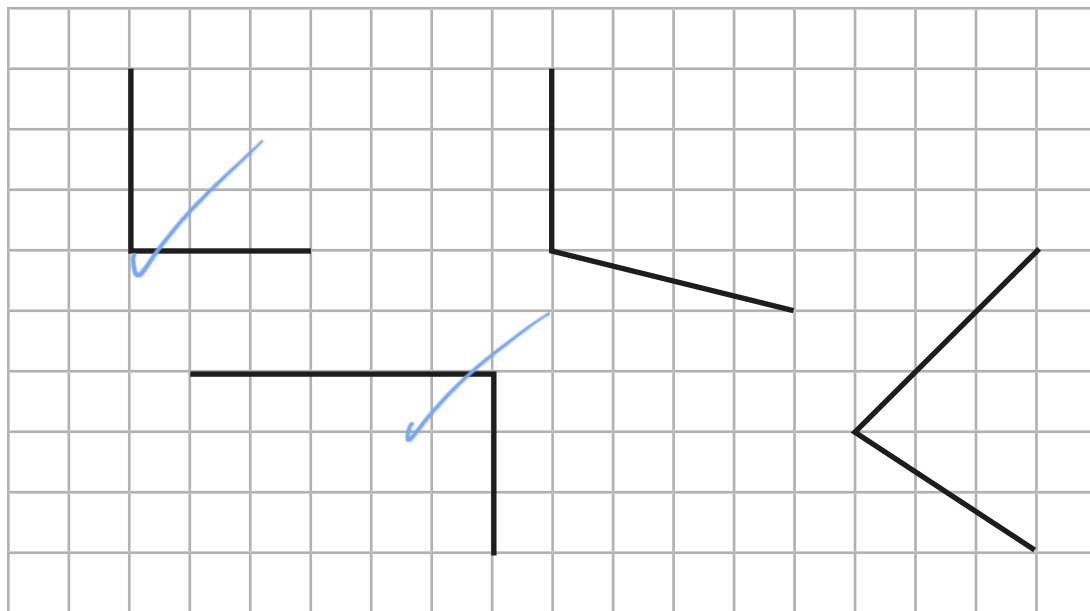
b)



Talk to a partner about how you did it.

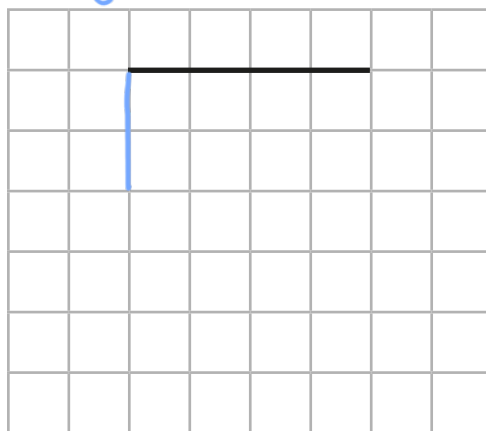


- 6 Tick the perpendicular lines.

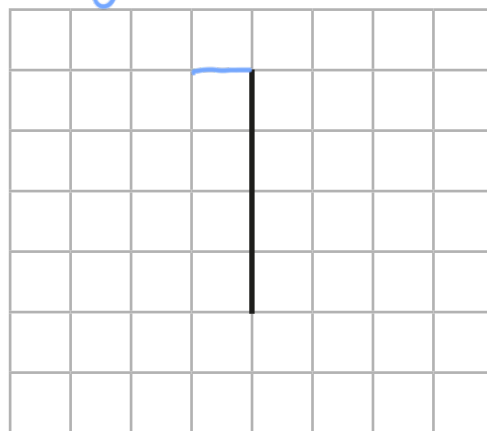


- 7 Here are two lines. Draw a line that is perpendicular to each.

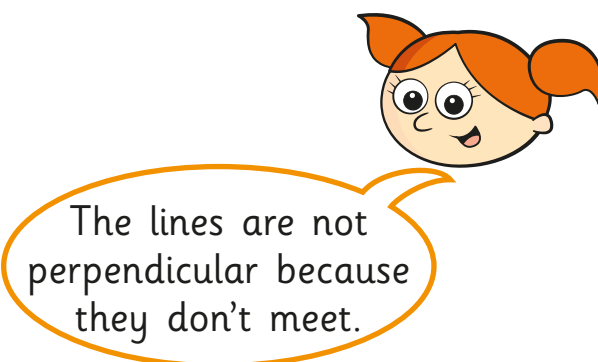
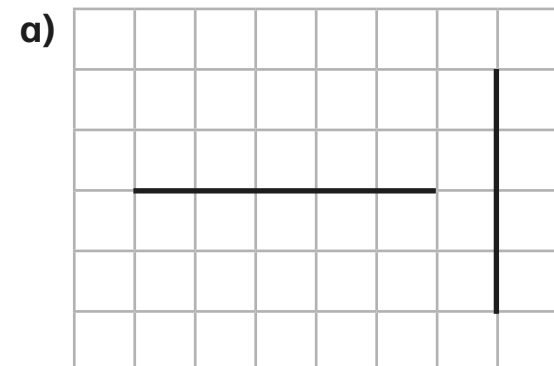
a) e.g.



b) e.g.

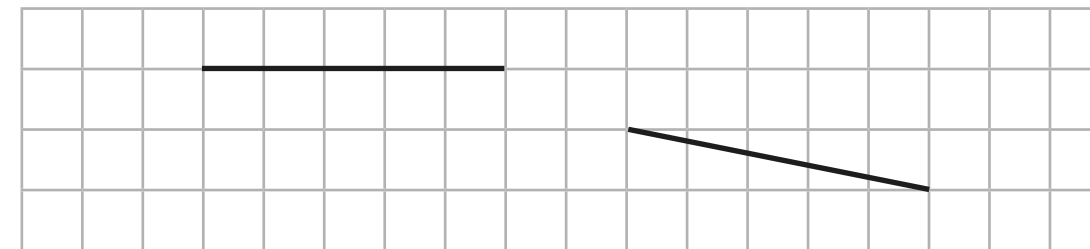


- 8 Alex has drawn some lines on grids.



Do you agree with Alex? No

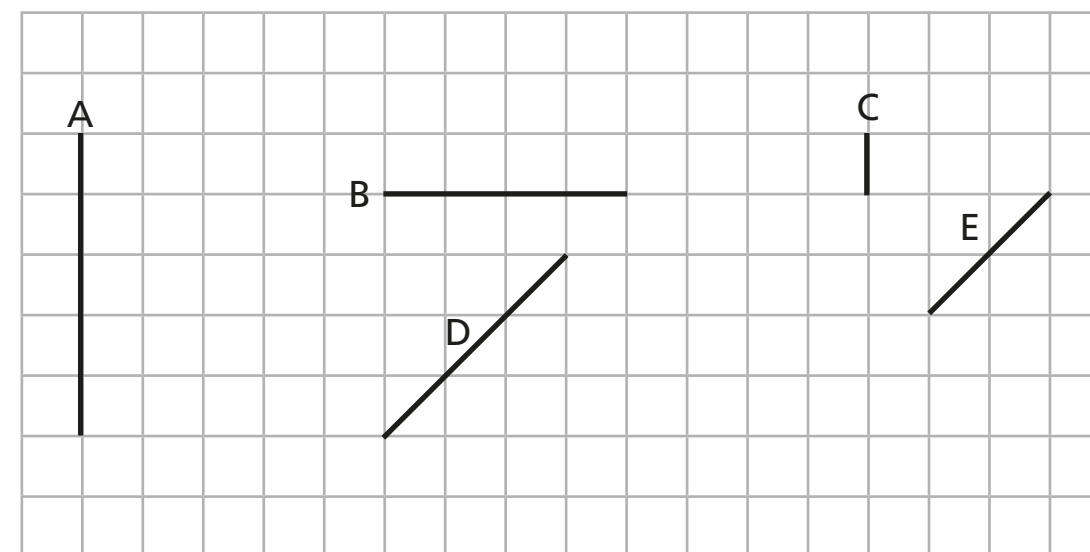
b)



Do you agree with Alex? No

Talk about your answers with a partner.

- 9 Five lines are drawn on the grid.



a) Which two pairs of lines are parallel?

A and C & D and E

b) Which two pairs of lines are perpendicular?

A and B & B and C

