

Turns and Angles

Answers

Monday 22nd June 2020

L.O. I am learning to recognise
turns and angles.

Key vocabulary: turn angles clockwise anti-clockwise quarter half three-quarter



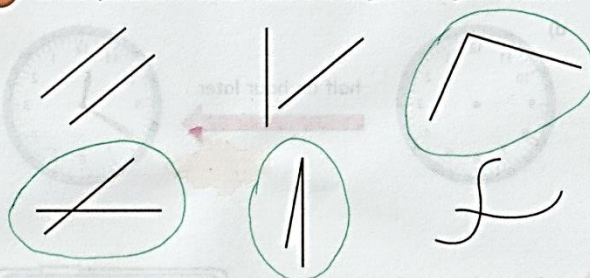
Check your answers.

If you make a mistake, try and work out where it went wrong.

Turns and angles

White
Rose
Maths

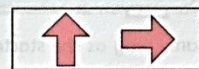
- 1 Which pictures show at least one angle? Tick your answers.



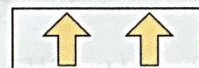
Compare answers with a partner.

- 2 The arrows are being turned clockwise.

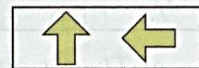
Match the picture to the turn.



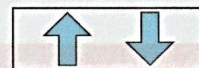
half turn



quarter turn

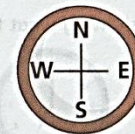


full turn



three-quarter turn

- 3 Here is a compass.



- a) Aisha is facing north.

She turns a quarter turn clockwise.

What direction is she facing now?

East

- b) Tommy is facing north.

He turns a quarter turn anticlockwise.

What direction is he facing now?

West

- c) Annie is facing east.

She turns a three-quarter turn clockwise.

What direction is she facing now?

North

- 4 Mo and Eva are answering a question.

Mr Lee is facing west. He turns a half turn.
What direction is he facing now?



Mo

I cannot answer
this because we don't
know what direction
he turns in.



Eva

It does not
matter about
the direction!

Who do you agree with?

Talk about it with a partner.

Eva



Check your answers.

If you make a mistake, try and work out where it went wrong.

- 5 Esther and Brett are showing what time it will be in a quarter of an hour.

Here is the time now.



Here are their answers.

Esther



Brett



Who is correct?

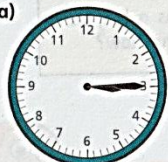
Brett

Talk about it with a partner.

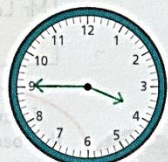
Time moves clockwise.

- 6 Draw hands on the clocks to show the new times.

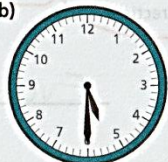
a)



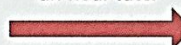
half an hour later



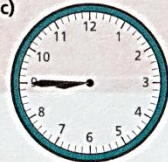
b)



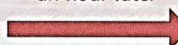
quarter of an hour later



c)



three-quarters of an hour later



d)

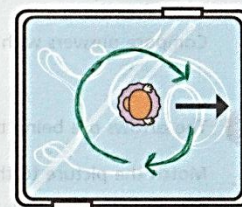


half an hour later



- 7 A figure skater is facing the direction shown.

She turns a quarter turn clockwise and then a three-quarter turn clockwise.



- a) Draw on the picture to show that she ends up facing the same way as she started.

- b) What other turns could she make and still end up facing the same way?

Half turn clockwise, half turn clockwise
3/4 turn clockwise, 1/4 turn clockwise
OR the same turns anti-clockwise

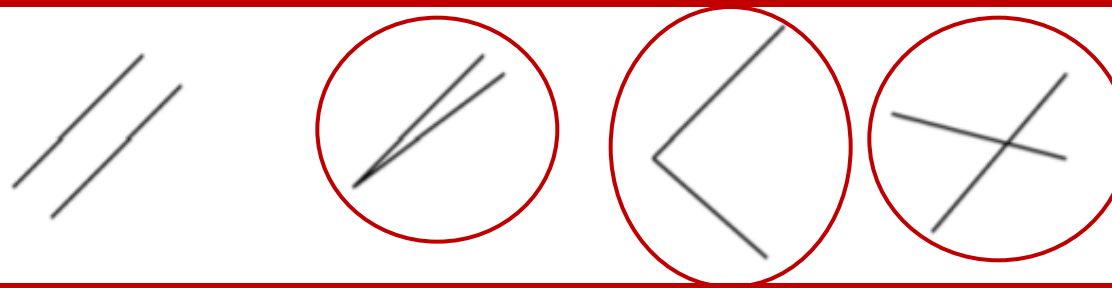
Compare answers with a partner.



Challenges:

The large hand is pointing at the 3.
The new time is quarter past 10.

Both children are
correct.



Three of these have angles because an
angle is made where two lines meet.

Tuesday 23rd June 2020

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

Key vocabulary: turn angles right-angle quarter half three-quarter



Check your answers.

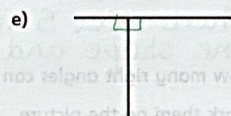
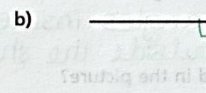
If you make a mistake, try and work out where it went wrong.

Right angles in shapes

White
Rose
Maths

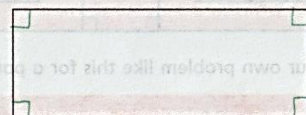
- 1 There is at least one right angle in each picture.
Mark the right angles on the pictures.

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.



Alex

Both of the angles
are right angles.



Jack

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.

Who do you agree with?

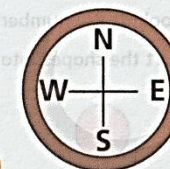
Alex

Talk about it with a partner.

- 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.



Check your answers.

If you make a mistake, try and work out where it went wrong.

- 5 Complete the sentences.

A quarter turn is equal to 1 right angle.

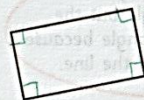
A half turn is equal to 2 right angles.

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

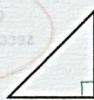
A full turn is equal to 4 right angles.

- 6 Draw the right angles on each shape.

a)



c)



b)

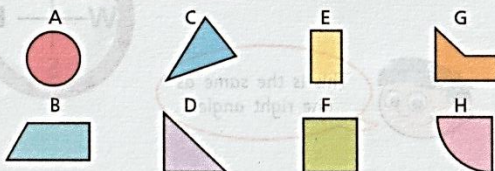


d)



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

Sort the shapes into the table.



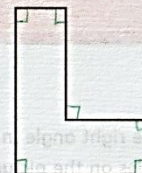
0 right angles	1 right angle	2 right angles	3 right angles	4 right angles
A C	D H	B	G	E F

- 8 Teddy and Whitney are identifying right angles.



Teddy

I can see five right angles.



Whitney

I can see six!

Who do you agree with?

Both can be correct

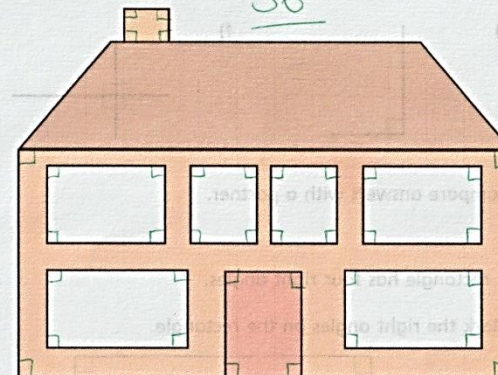
Draw on the shape to show your thinking.

There are 5 right-angles inside the shape and 1 outside the shape.

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

Mark them on the picture.

36



Create your own problem like this for a partner.



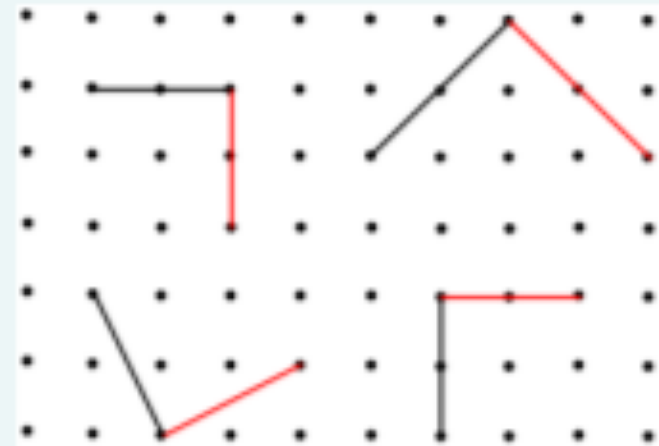
Challenges:

There are 34 right angles.

False.

Children could show this by using the corner of a page to show there aren't any right angles.

For example (see red lines):



Wednesday 24th June 2020

L.O. I am learning to compare angles.

Key vocabulary: angles acute right-angle obtuse greater than less than degrees



Check your answers.

If you make a mistake, try and work out where it went wrong.

Compare angles

White
Rose
Maths

1 Here are some angles.

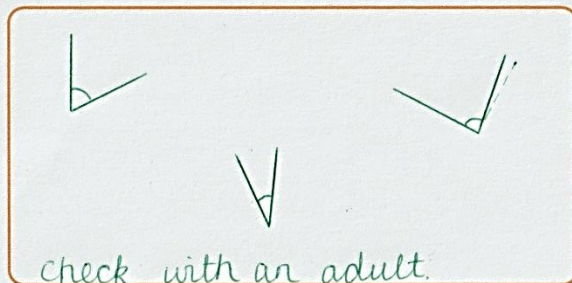
a) Circle the angle that is greater than a right angle.



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



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

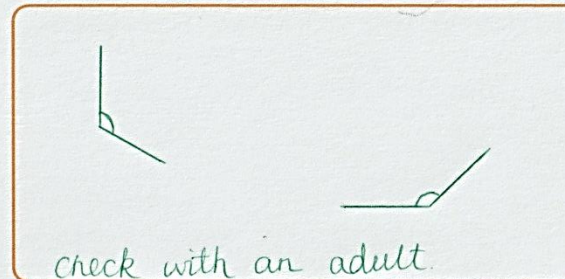


Compare answers with a partner.

Complete the sentence.

These are all examples of acute angles.

3 Draw two different obtuse angles.



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)



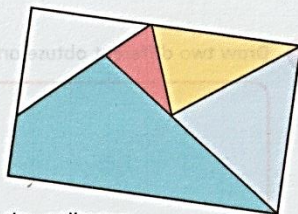
obtuse



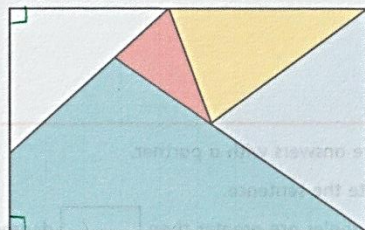
Check your answers.

If you make a mistake, try and work out where it went wrong.

5 Here is a piece of wallpaper.

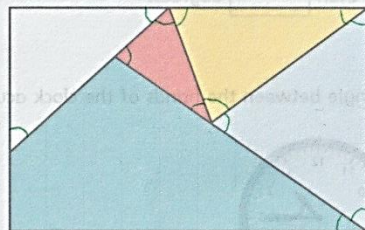


a) Mark two right angles on the wallpaper.

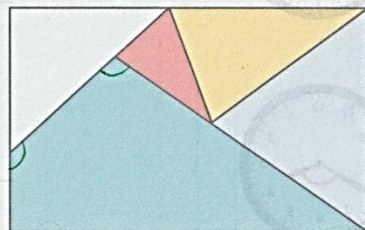


b) Mark four acute angles on the wallpaper.

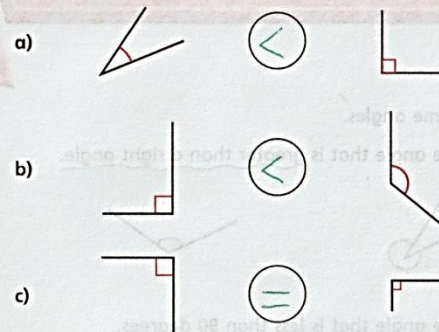
Any of these →



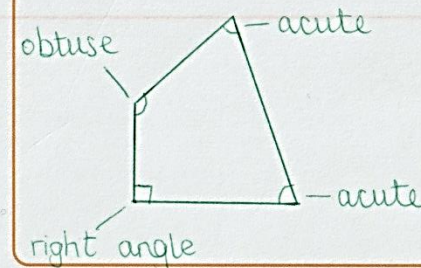
c) Mark two obtuse angles on the wallpaper.



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.



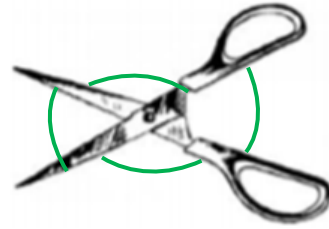
Compare answers with a partner.

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

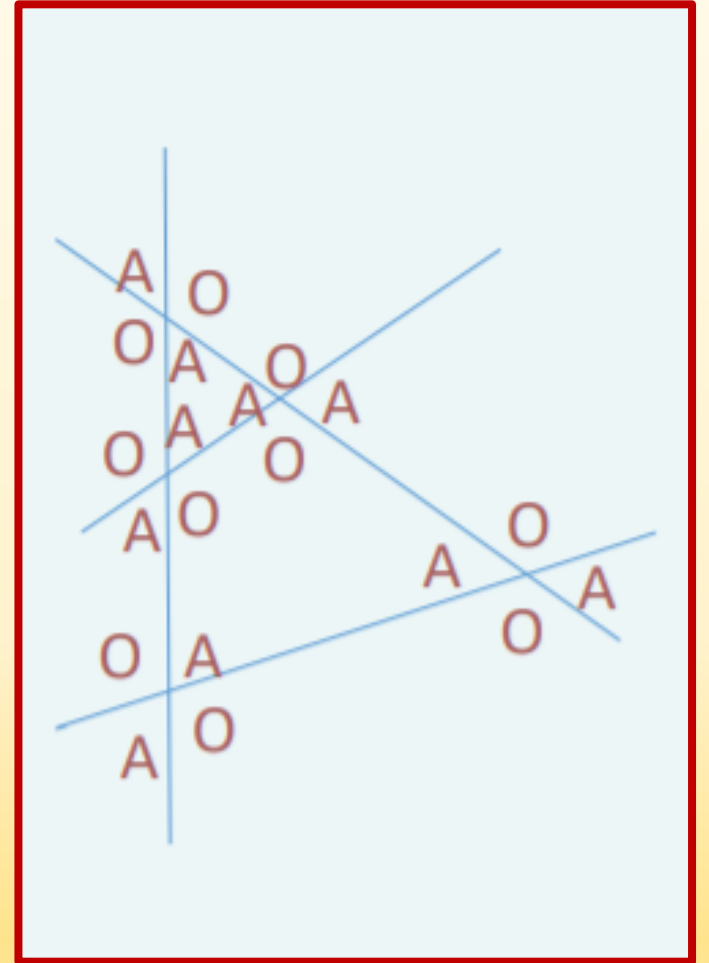
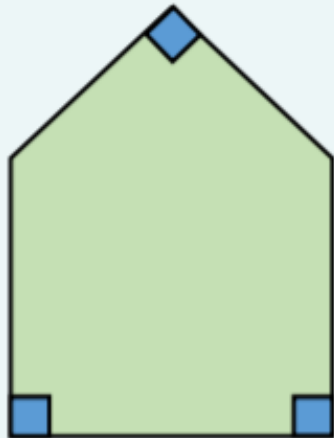


Challenges:

There are 5 acute angles and 4 obtuse angles.



Possible answer:



Thursday 25th June 2020

L.O. I am learning to draw lines accurately.

Key vocabulary: line millimetre (mm) centimetre (cm) long length ruler



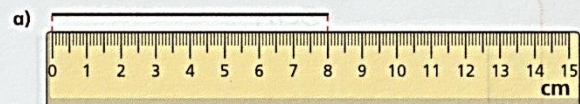
Check your answers.

If you make a mistake, try and work out where it went wrong.

Draw accurately

White
Rose
Maths

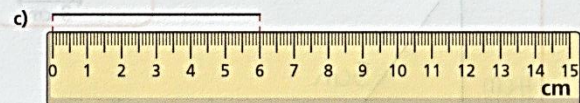
1 How long is each line?



8 cm

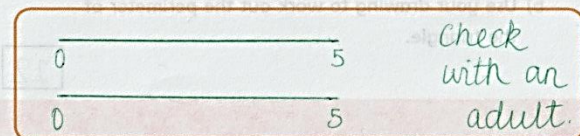


11 cm



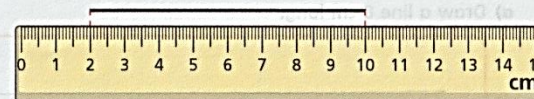
6 cm

2 Draw two lines that are each 5 cm long.



check
with an
adult.

3 Dani says the line is 10 cm long.



a) What mistake has Dani made?

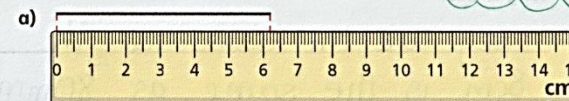
She didn't start at 0cm,
she started at 2cm.

b) How long is the line?

8 cm

4 What is the length of each line in millimetres?

1 cm = 10 mm



62 mm



115 mm

c)

25 mm

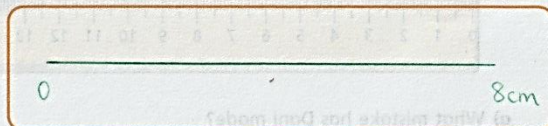


Check your answers.

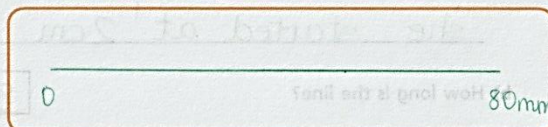
If you make a mistake, try and work out where it went wrong.

- 5 Use a ruler to draw the lines.

a) Draw a line 8 cm long.



b) Draw a line 80 mm long.



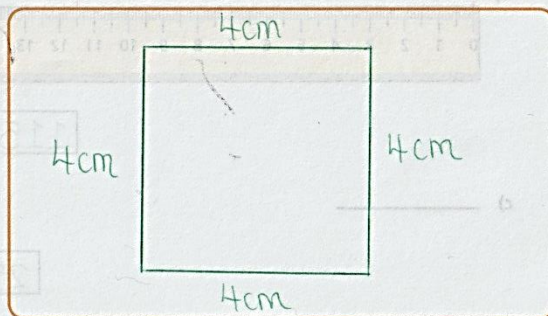
What do you notice about the lines you have drawn?

Why is this?

They are the same length.
8cm is the same as 80mm.

- 6 Use a ruler to help you answer the questions.

a) Draw a 4 cm by 4 cm square.

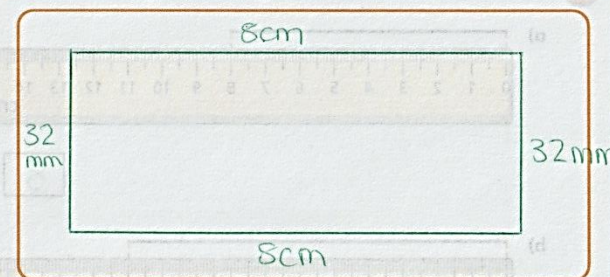


- b) Measure the length of the diagonal.

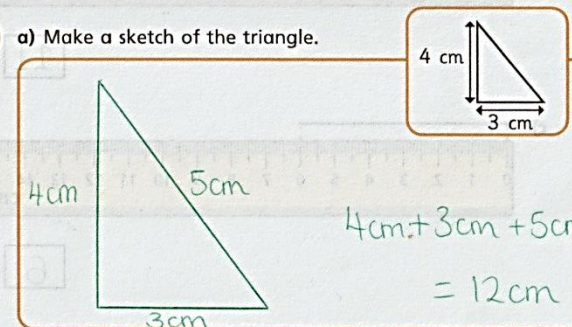
Give your answer in millimetres.

55 mm
or near.

- 7 Draw a rectangle 8 cm long and 32 mm wide.



- 8 a) Make a sketch of the triangle.



- b) Use your drawing to work out the perimeter of the triangle.

12 cm



Challenges:

Ask an adult to check the length of your lines 😊

Alex is not correct because she has started measuring the line from the end of the ruler instead of from '0'

Possible answer:



The length of the route will depend on the size of the maze used.

Friday 26th June 2020

L.O. I am learning find angles
around me.

Send us a picture of what
you did for today's challenge 😊

Key vocabulary: angles acute right-angle obtuse greater than less than degrees