

Hello Year 4!

It's now the second half of the summer term. We are so proud of your hard work with all your online learning.

We know you're giving it your best go!

We have set up your learning for the next week as daily slides for you to follow.

Please follow the instructions on each page to help you - we look forward to hearing about how you have got on!

Miss Hill and Mrs Tally

Notes for Maths Online Learning

- You will need a pencil and a piece of paper, if you have a pad you can keep working from this would be ideal.
- All MyMaths Online lessons will have unlimited availability for you to complete. We will be able to access it each day to see how you got on and if you have completed the task we have set.
- After some sessions there will be a '**extra**' activity if you would like some additional reasoning work to do.
- We will endeavor to provide lessons and activities which you will not need to print off.



St Catherine's Classroom Beliefs

- Mistakes are valuable.
- Everyone can learn maths to the highest level.
- Questions are really important.
- Depth is more important than speed.
- Maths is about making connections.

Session 1

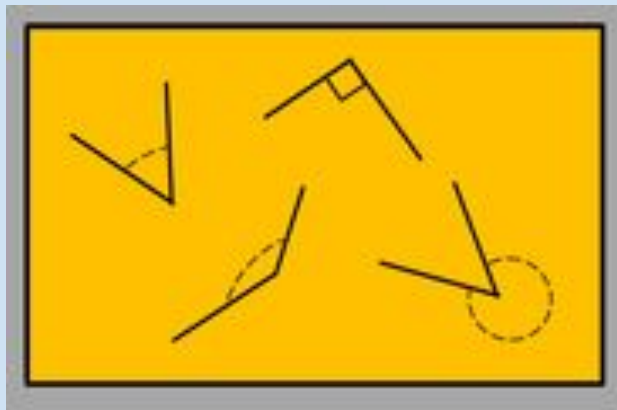


Shape: Identifying Angles

- Identify a right angle, acute angle and an obtuse angle
- Compare acute and obtuse angles to a right angle and check if they are smaller or larger.
- Identify angles in context or in an alternative environment.

Vocabulary

- Right angle
- Obtuse angle
- Acute angle
- Reflex angle

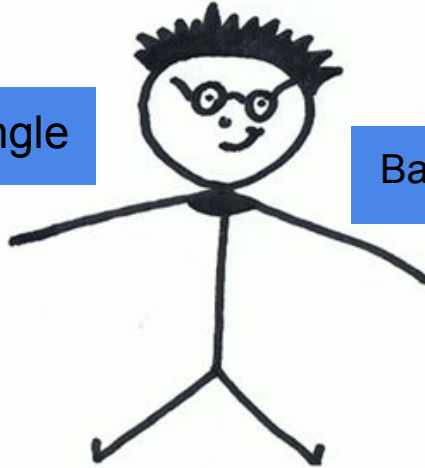


REMEMBER - ANGLE NOT ANGEL!

Monday 15th June

Meet the Angle Family:

Mr Obtuse Angle



Baby Acute Angle



Mrs Right Angle



Reflex Angle



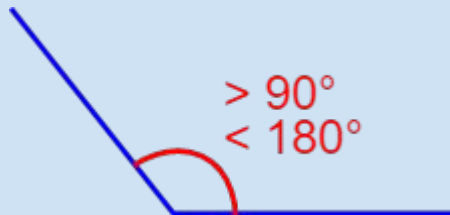
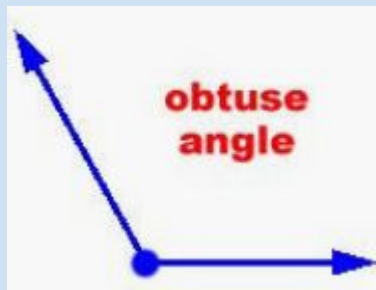
Monday 15th June

This is Obtuse.

He's the husband of the family.

He's *bigger than Right and Acute*.

He's always inside, and he always measures between 90° and 180° (depending on how much dinner he's eaten!)



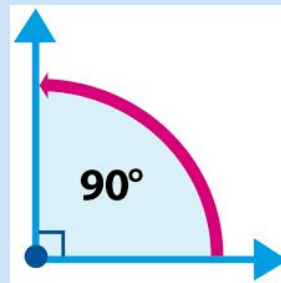
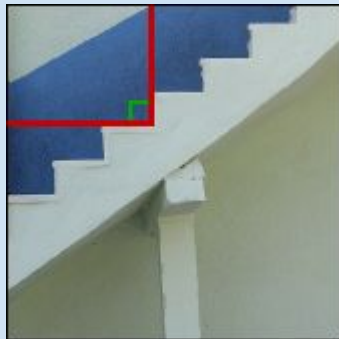
Monday 15th June

This is me.

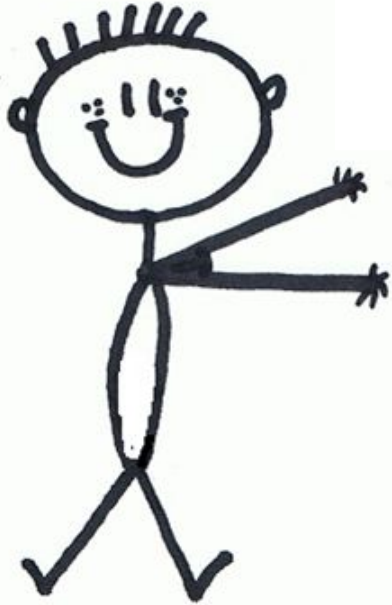
I'm Mrs. Right Angle.

I always measure 90° .

My favourite shape is a square, and whatsmore, no matter what my husband tells you, I'm always right!



Monday 15th June

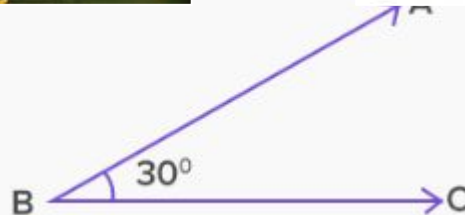
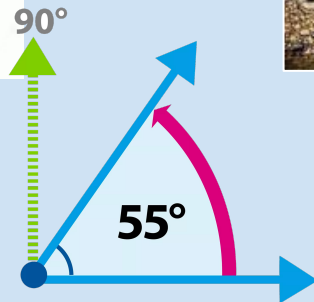


This is baby Acute angle.

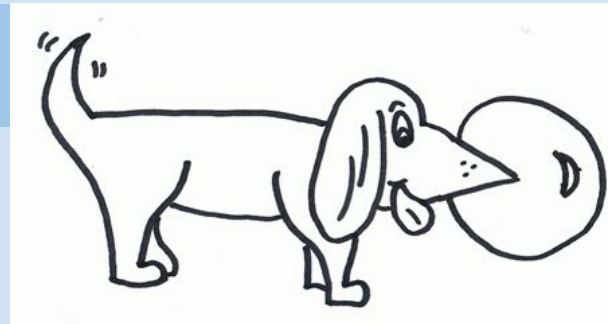
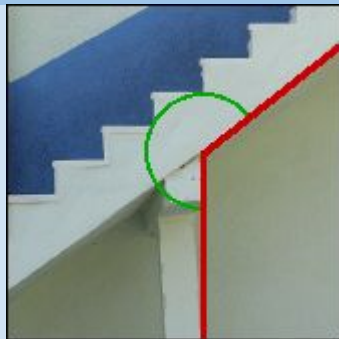
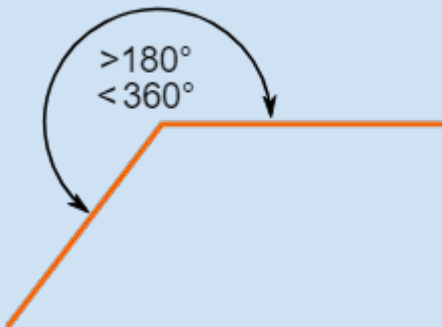
Isn't he cute?!

He loves a hug, and always has his arms out for cuddles!

He's the smallest of the family, measuring less than 90° .



Monday 15th June



This is our pet dog, Reflex. He's always outside. He's only a pup at the moment so he measures 180° , but he can grow up to 360° ! So he's definitely the biggest angle. You'll never see him without that ball in his mouth either, horrid thing!

Reflex angles are special and don't pop up much in Year 4!

It's good to hear about different angles though

Monday 15th June

Write these sentences out and fill in the blanks:

A right angle is _____ degrees

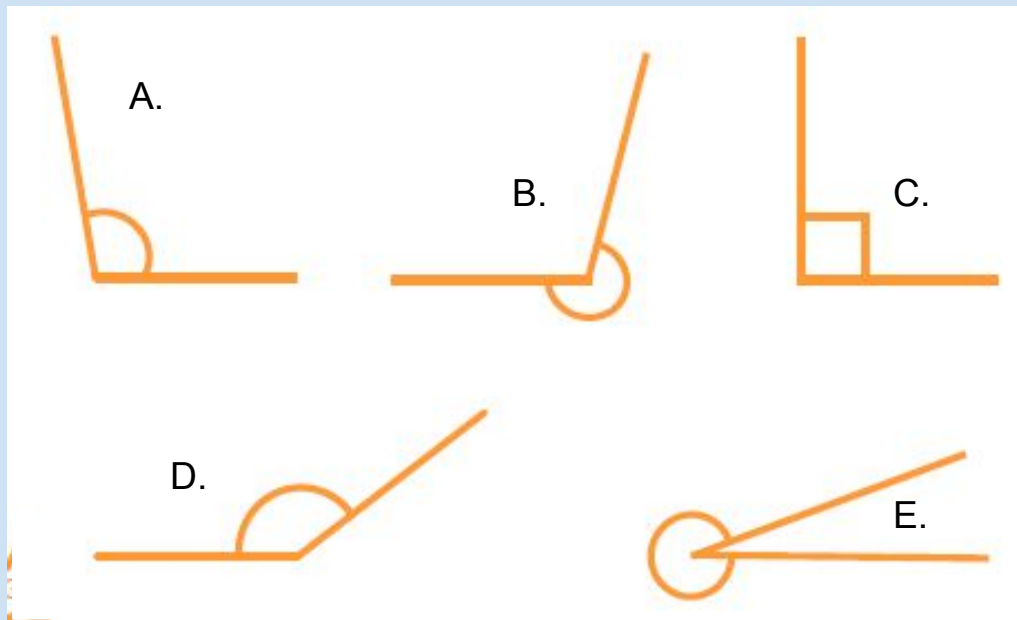
Acute angles are _____ than a right angle

Obtuse angles are _____ than a right angle

Can you draw a right angle, acute angle and obtuse angle?

USE A RULER!

Monday 15th June

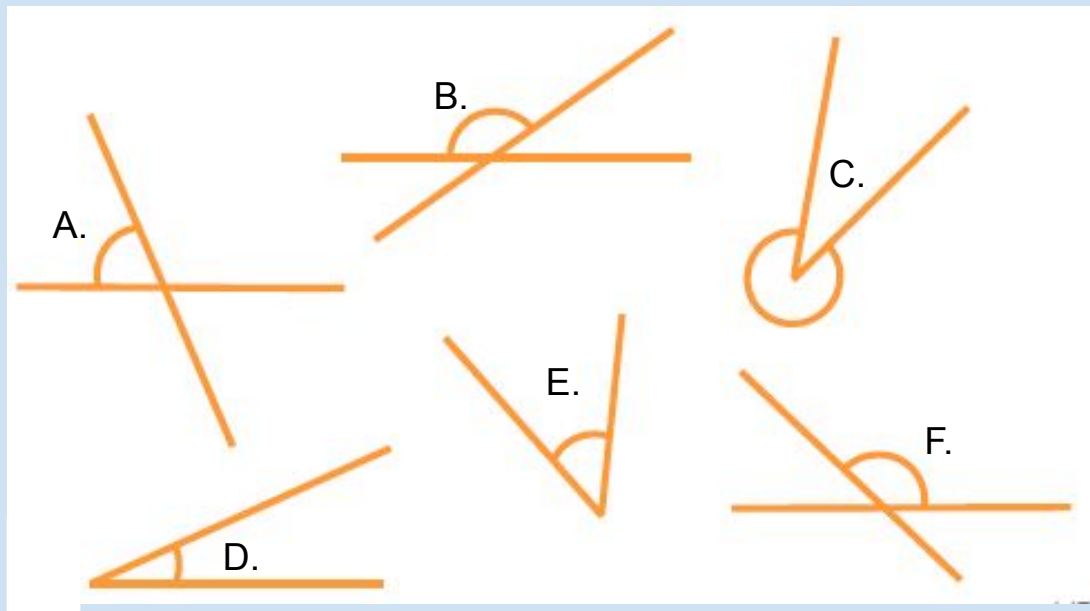


Identify the obtuse angles

Remember:

- Greater than 90° and less than 180°
- Always inside the shape

Monday 15th June



Identify the acute angles

Remember:

- Less than 90°
- Always inside the shape

Monday 15th June

Use the symbols $<$ $>$ or $=$ to make the statements correct

right angle 90° acute angle

45° right angle 180°

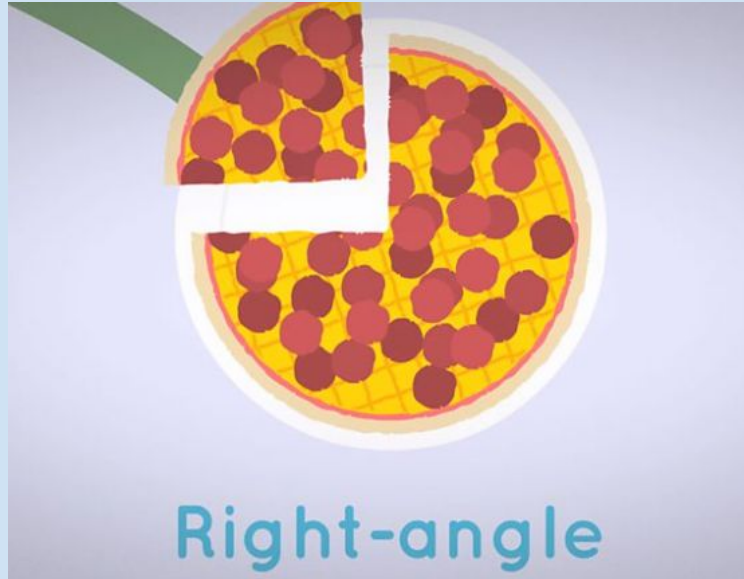
75° right angle 121°

obtuse angle acute angle 87°

Monday 15th June

<https://www.bbc.co.uk/bitesize/topics/zb6tyrd/articles/zg68k7h>

Click on this link to watch some videos and play a game all about angles!



Monday 15th June

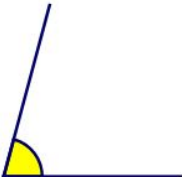
Extra Activity

Lesson | Angles - multiple choice activity

Multiple choice activity

1

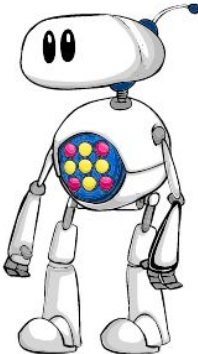
Is this angle acute, obtuse or reflex?



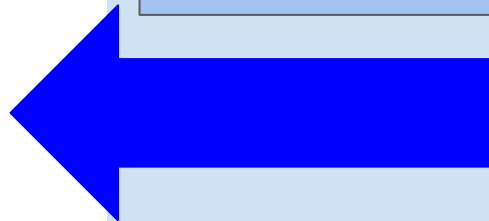
acute

obtuse

reflex



Have a go at the lesson:
Angles - multiple choice
activity



St Catherine's Classroom Beliefs

- Mistakes are valuable.
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Session 2

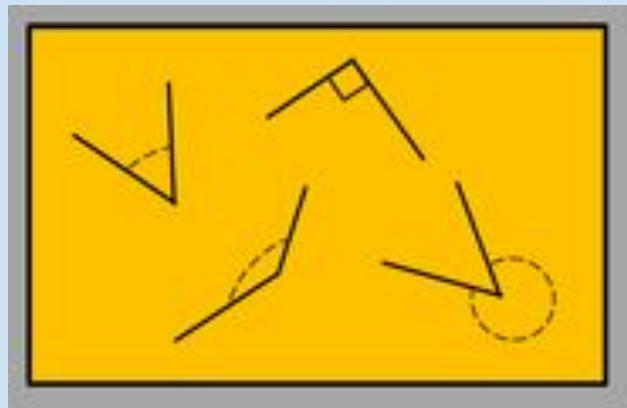


Shape: Identifying Angles

- Identify a right angle, acute angle and an obtuse angle
- Compare acute and obtuse angles to a right angle and check if they are smaller or larger.
- Identify angles in context or in an alternative environment.

-

REMEMBER - ANGLE NOT ANGEL!



Tuesday 16th June

Match the angles that will still be acute when they are combined together

67°

23°

75°

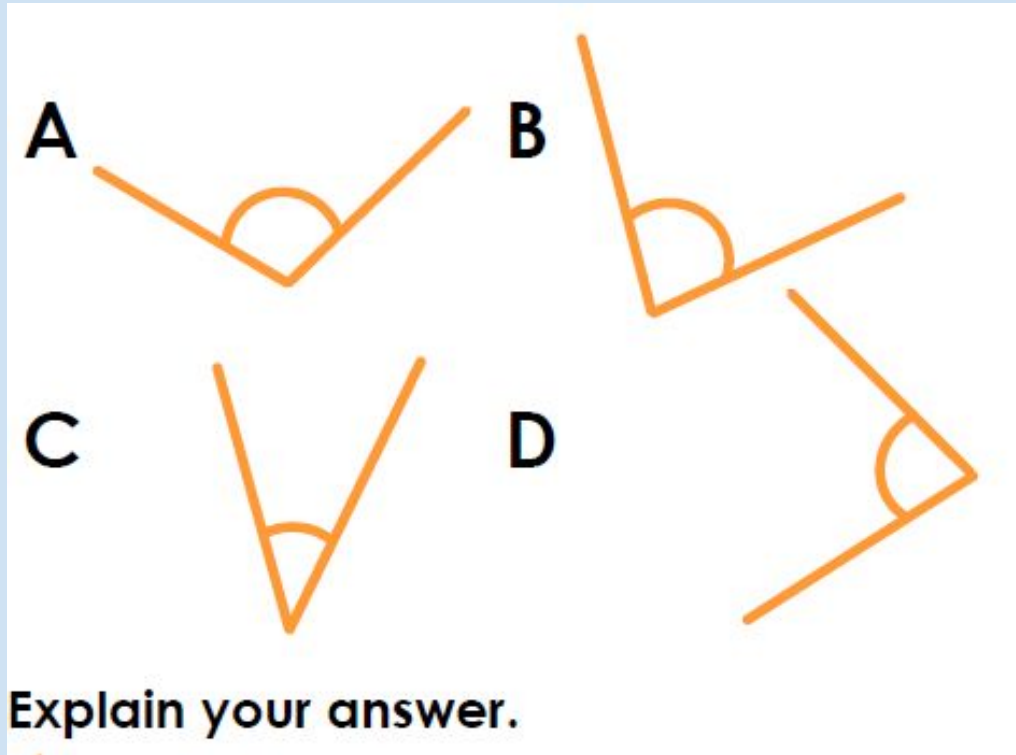
56°

19°

14°

Tuesday 16th June

Which angle is the odd one out?

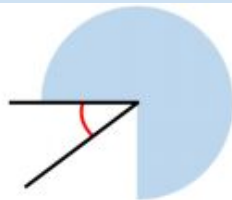


Tuesday 16th June

Using these digit cards, can you create more obtuse or acute angles?



Tuesday 16th June



I know the angle is not obtuse.



Teddy



Alex

I know the angle is acute.

I think the angle is roughly 45° .



Whitney

Who is correct?
Explain your reasons.

Tuesday 16th June

Find the sum of the largest acute angle
and the smallest obtuse angle in this list:

12° 98° 87° 179° 90° 5°

St Catherine's Classroom Beliefs

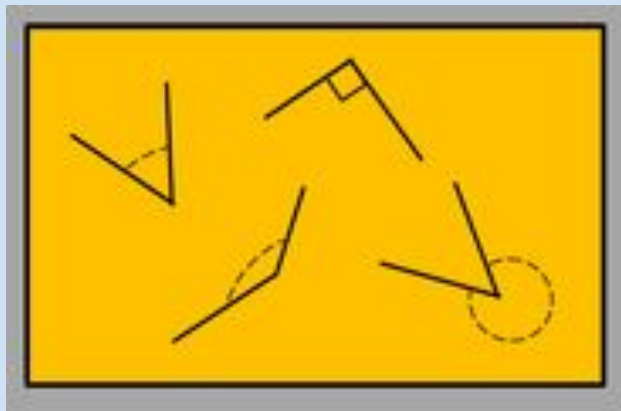
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Session 3



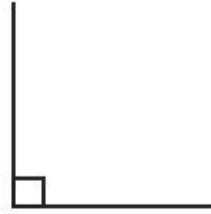
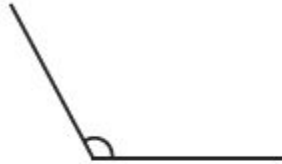
Angles - Identifying angles

- Identify acute, obtuse and right angles according to their features
- Identify acute, obtuse and right angles in your own home



Wednesday 17th June

Circle the obtuse angles:

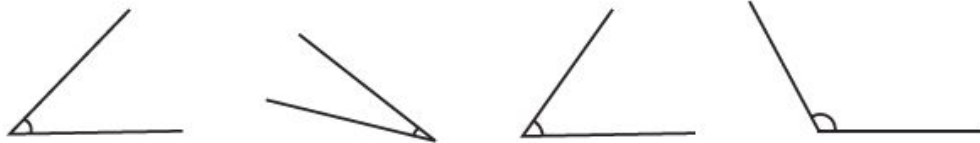


Look at these shapes. Label each of the interior angles as obtuse, acute or a right angle.



Wednesday 17th June

Which angle is the odd one out?



Explain your answer:

Romesh says, "A triangle can have two obtuse angles."

Is he correct? _____

Prove it!

Draw a triangle with two obtuse angles to see if it is possible.

This will help you to explain your answer!

Wednesday 17th June

Write a statement about the angles in a trapezium that is

a) never true: _____

b) always true: _____

Explain your answer: _____

Zafi adds three acute angles together to make an obtuse angle.

a) What is the smallest size her angles can be? _____

b) What is the largest? _____

c) Prove it! _____

St Catherine's Classroom Beliefs

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Session 4



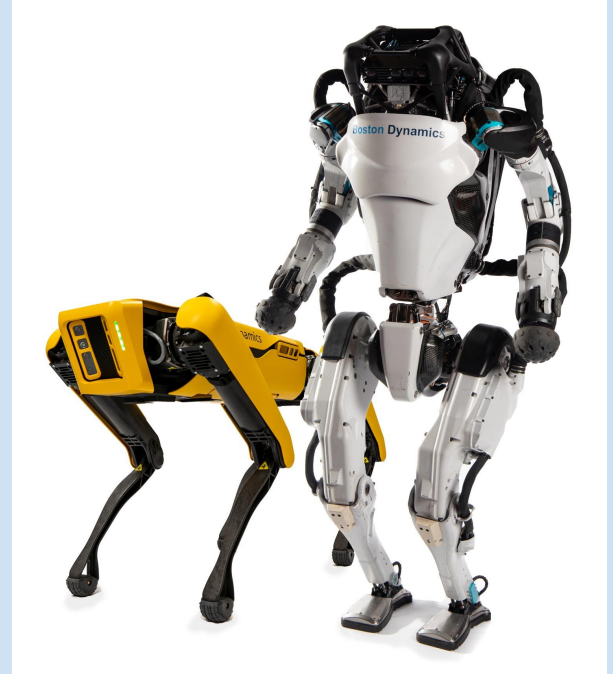
Shape: Identify, Compare and Order Angles

- Compare and order angles in ascending and descending order
- To identify and order angles in different representations including shapes on a grid.
- Compare angles to right angles to help begin to order them

Thursday 18th June

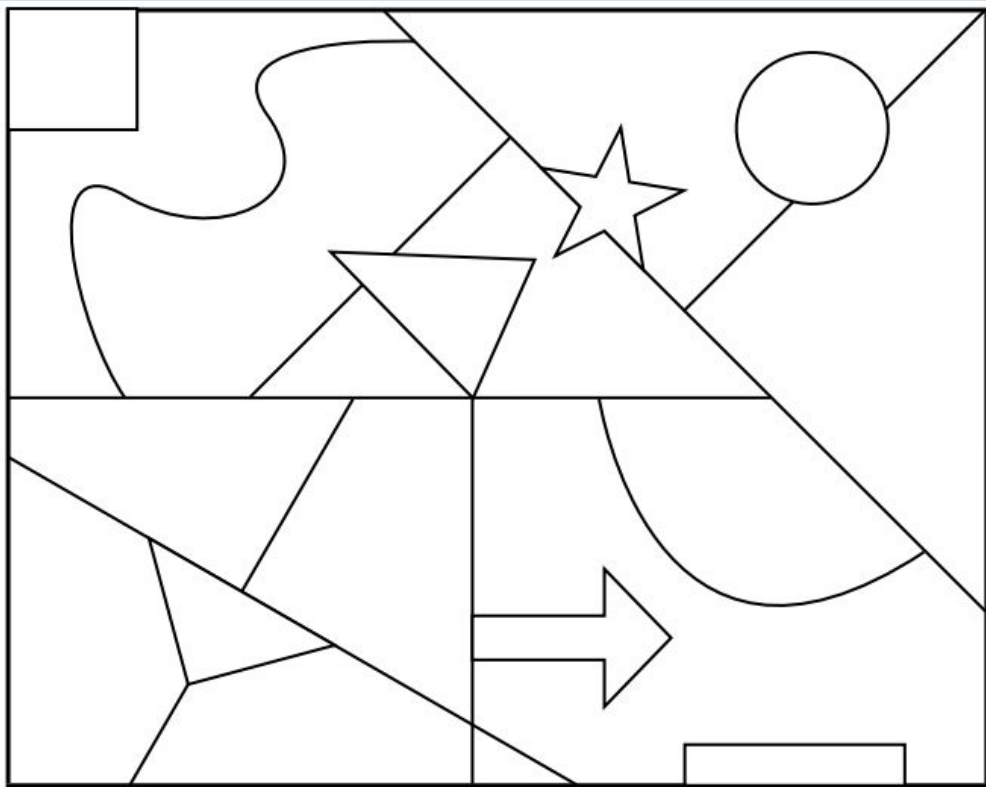
<https://www.topmarks.co.uk/Flash.aspx?a=activity16>

Follow this link and play the game all about identifying angles!



Thursday 18th June

How many right, acute and obtuse angles can you find in this picture?



REMEMBER:

- They're all inside the shape
- Remind yourself of the properties of the different angles.

Thursday 18th June

Identify and document a range of angles in your own home!

You could take pictures and label them

You could draw the object and how you have identified the angle in your house.

For example...The corner of the cupboard door is a right angle = 90 degrees.



St Catherine's Classroom Beliefs

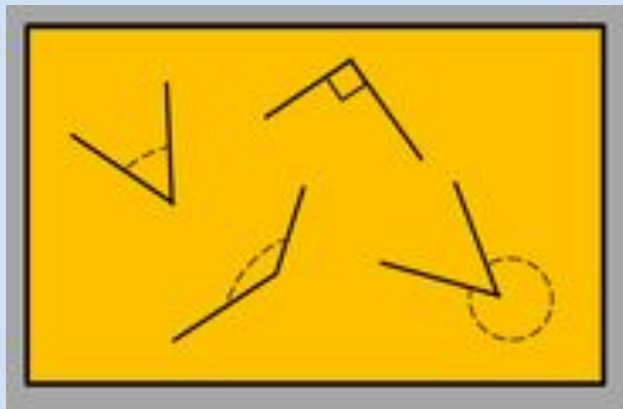
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Session 5



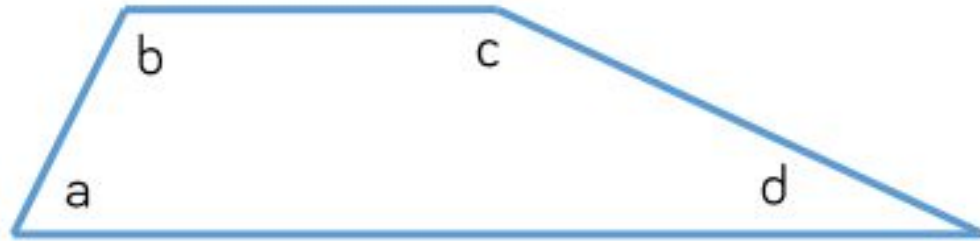
Shape: Compare and Order Angles

- Compare and order angles in ascending and descending order
- To identify and order angles in different representations including shapes on a grid.
- Compare angles to right angles to help begin to order them



Friday 19th June

Order the angles in the shape from smallest to largest.
Complete the sentences.

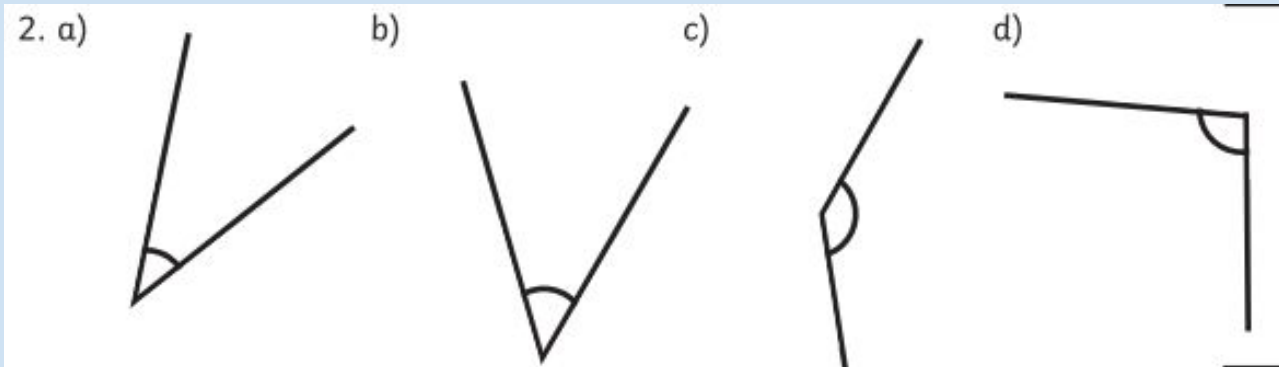
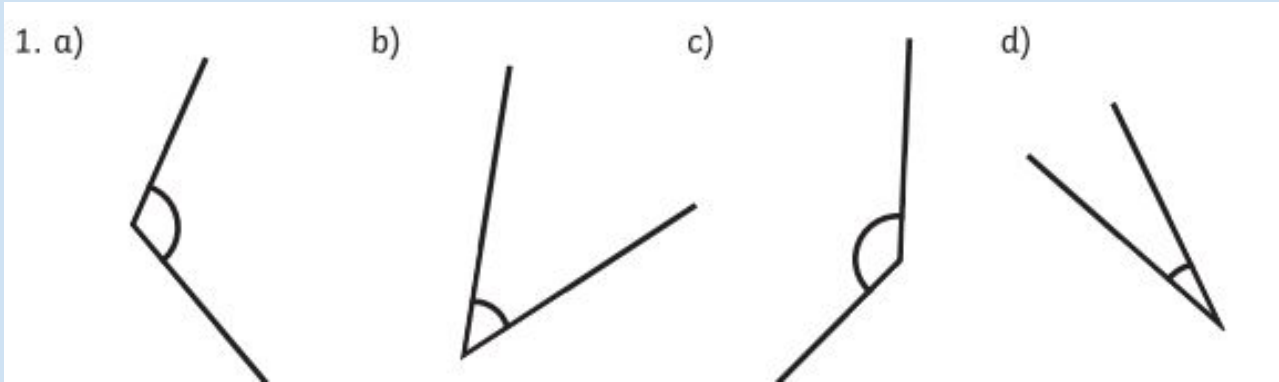


Angle ____ is smaller than angle ____.

Angle ____ is larger than angle ____.

Friday 19th June

Order these angles from smallest to largest

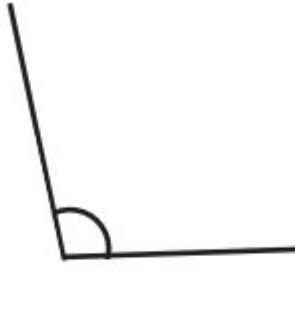


Friday 19th June

3. a)



b)



c)



d)



4. a)



b)



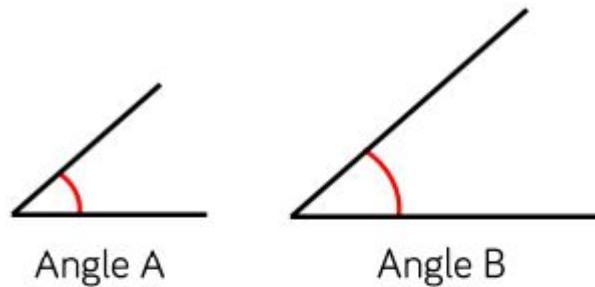
c)



d)



Friday 19th June



Ron

Angle B is bigger than Angle A because it has longer sides.

Do you agree with Ron? Explain your thinking.

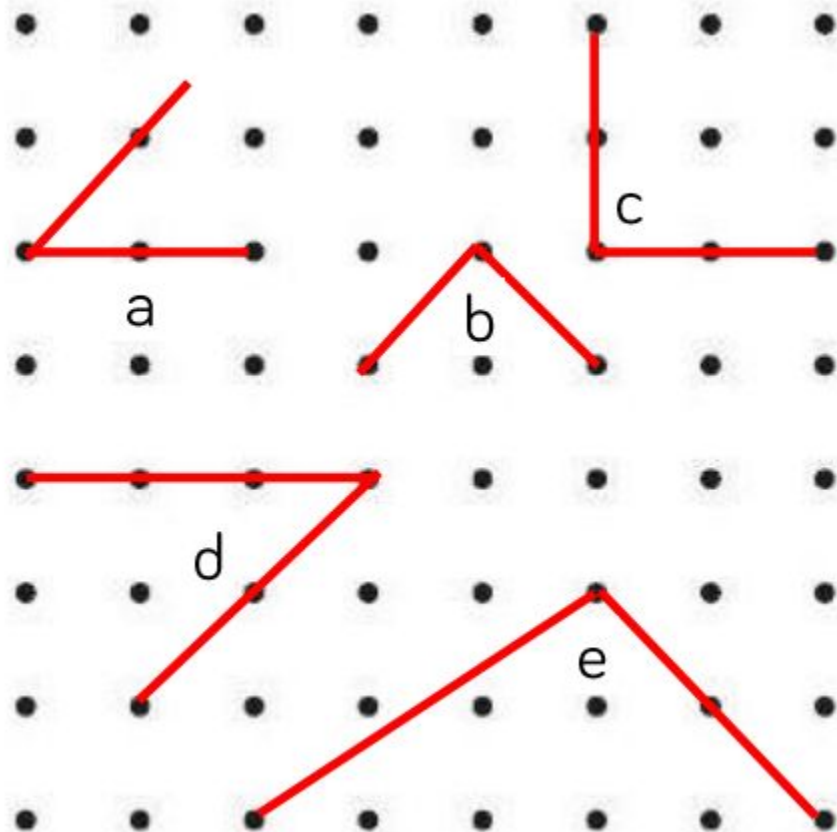
Friday 19th June

Here are five angles.

There are two pairs of identically sized angles and one odd one out.

Which angle is the odd one out?

Explain your reason.



Friday 19th June

Can you identify the angle?

<http://www.snappymaths.com/other/shapeandspace/angles/interactive/acuterightobtuse/acuterightobtuse.htm>



Answers

15.06.20

1. A and D
2. A, D and E
3. Right angle = 90° > acute angle
 $45^\circ < \text{right angle} < 180^\circ$
 $75^\circ > \text{right angle} < 121^\circ$
Obtuse angle > acute angle = 87°

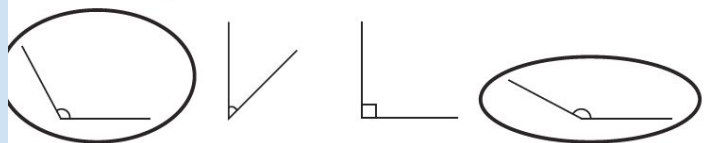
16.06.20

1. $67^\circ - 19^\circ$; $23^\circ - 79^\circ$; $75^\circ - 14^\circ$.
2. A is the odd one out as it is an obtuse and the others are all acute.
3. I can create the same amount for each; acute = 19° , 12° , 21° , 29°
obtuse = 91° , 92° , 99° , 129° .
4. All are correct. Children may reason about how Whitney has come to her answer and discuss that the angle is about half a right angle. Half of 90° is 45°
5. ~~$87+98=185$~~

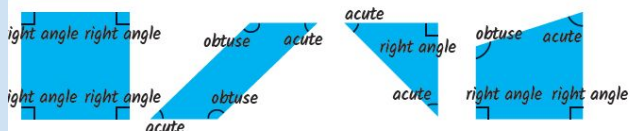
Answers

17.06.20

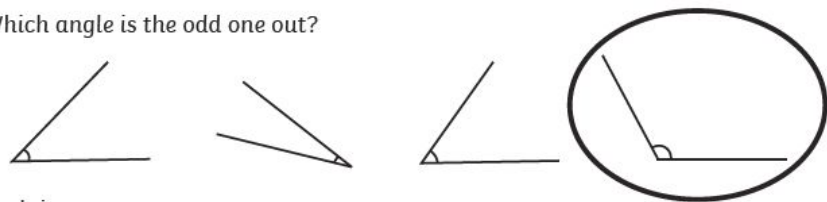
Circle the obtuse angles:



Look at these shapes. Label each of the interior angles as obtuse, acute or a right angle.



Which angle is the odd one out?



Explain your answer:

Children's own responses, such as: one is obtuse; one is more than a right angle; one is more than 90 degrees.

Romesh says, "A triangle can have two obtuse angles."

Is he correct? **No.**

Prove it!

Accept answers, drawn or written, which show an understanding that the shape would never be able to have closed sides if two angles are obtuse.

Answers

17.06.20

Write a statement about the angles in a trapezium that is

- a) never true: *Answers may include: A trapezium can have more than two obtuse angles; can have more than two acute angles; always has four angles the same.*
- b) always true: *Answers may include: A trapezium always has at least two pairs of equal angles; always has two acute and two obtuse angles.*



Explain your answer: *Multiple answers possible.*

Zafi adds three acute angles together to make an obtuse angle.

- a) What is the smallest size her angles can be?
Accept any combination of three angles totalling 91° .
- b) What is the largest?
Accept any combination of three acute angles totalling 179° .
- c) Prove it!
Children's own responses, showing an understanding that the smallest possible obtuse angle is 91° and the largest is 179° and that the three angles must all be smaller than 90° to be acute.

Answers

19.06.20

1. Angle a is smaller than angle c
Angle b is larger than angle d
2. d b a c
a d d c
d c b a
c a b d
3. Angle A and Angle B are the same size. Ron has mixed up the length of the sides with the size of the angle
4. Angle e is the odd one out. Angle b and c are both right angles. Angle a and d are both half of a right angle or 45 degrees. Angle e is an obtuse angle.