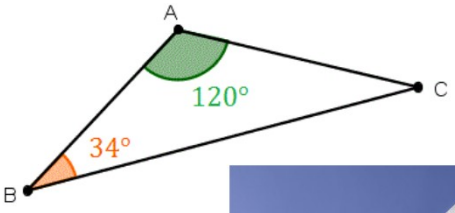
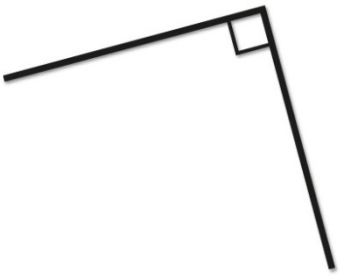
18.1.21

TBAT identify different types of angles

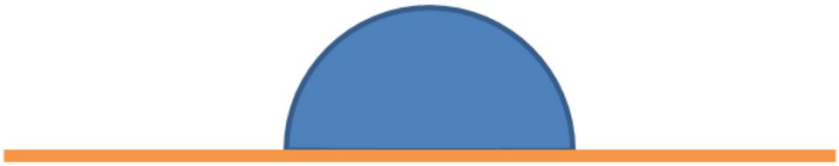




What is an angle and what does it measure?

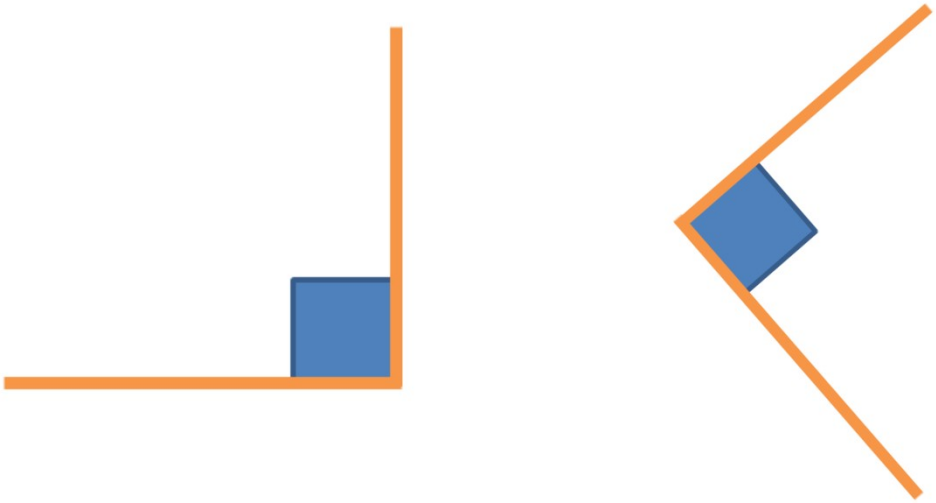
TBAT identify different types of angles

A straight line is an angle of 180°
(also know as a straight angle)



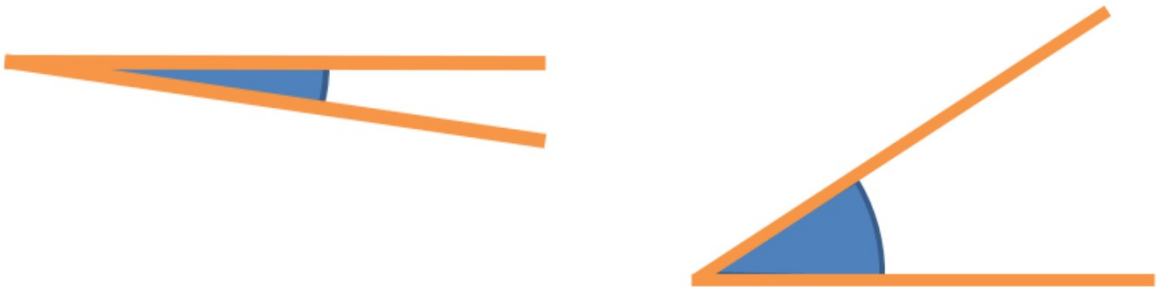
TBAT identify different types of angles

A right angle is 90°



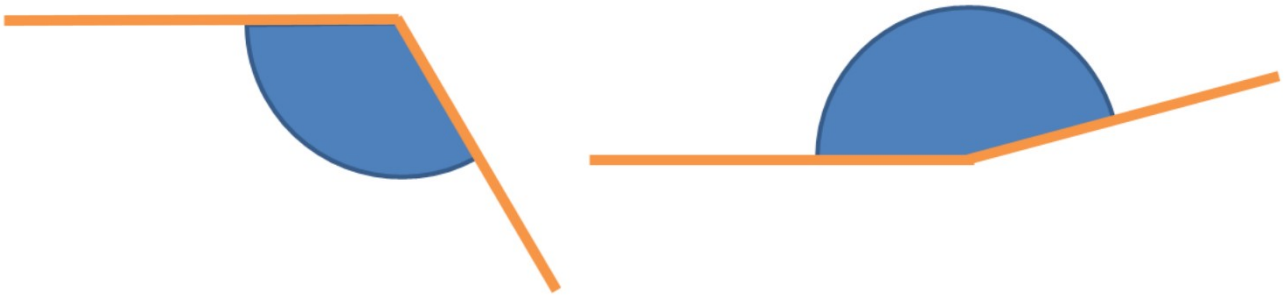
TBAT identify different types of angles

An acute angle is smaller than a right angle (90°)



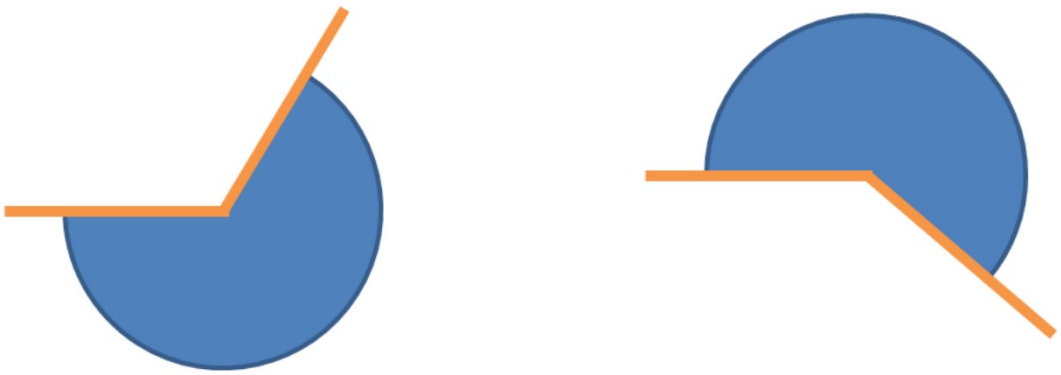
TBAT identify different types of angles

An obtuse angle is larger than a right angle (90°) but smaller than a straight line (180°)



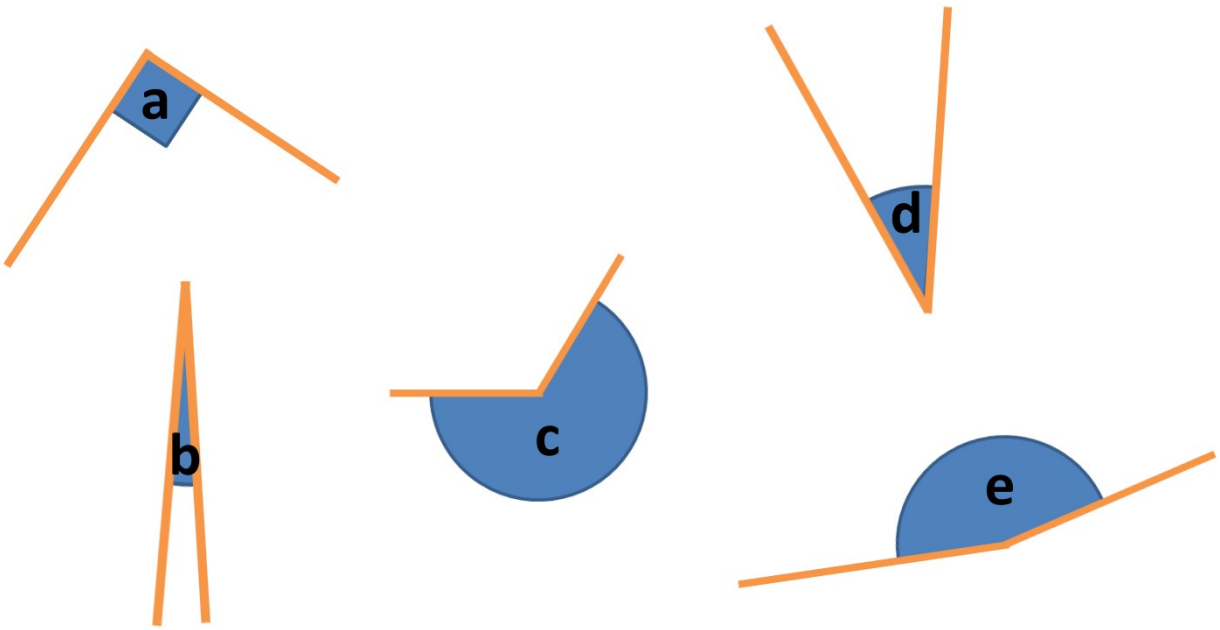
TBAT identify different types of angles

A reflex angle is larger than a straight line (180°)



TBAT identify different types of angles

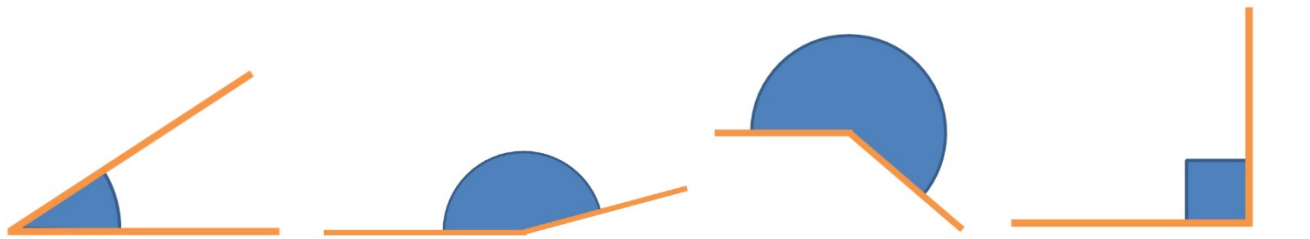
What types of angles can you identify?



TBAT identify different types of angles

Task:

Identify the angles shown on your sheet as either acute, obtuse, reflex or right angles



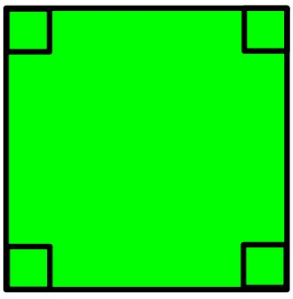
Acute | Obtuse | Reflex | Right angle

Tuesday

19.2.21

TBAT identify, estimate and compare angles

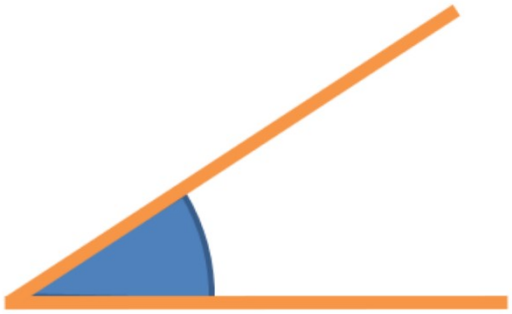
All shapes have angles, for example a square has 4 right angles:



Can you draw another quadrilateral (4 sided shape) has 2 acute angles and 2 obtuse angles?

TBAT identify, estimate and compare angles

What do we know about this angle?

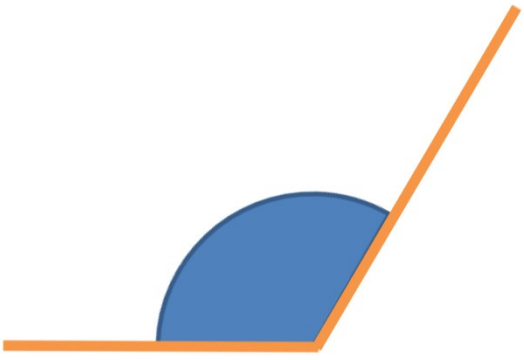


How might we estimate its size?

Is the angle approximately: a) 80° b) 100° c) 45° ?

TBAT identify, estimate and compare angles

What do we know about this angle?

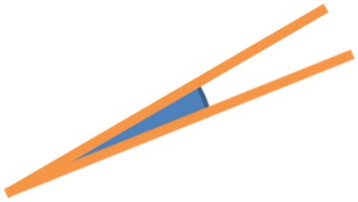


How might we estimate its size?

Is the angle approximately: a) 125° b) 85° c) 170°

TBAT identify, estimate and compare angles

What do we know about this angle?



Is the angle approximately: a) 45° b) 10° c) 60°

TBAT identify, estimate and compare angles

A starting point for estimating:

Is the angle bigger or smaller than 90°?

Smaller → **Acute angle**

The angle must be between 1° and 89°

Bigger → Is the angle bigger than 180°?

No → **Obtuse Angle**

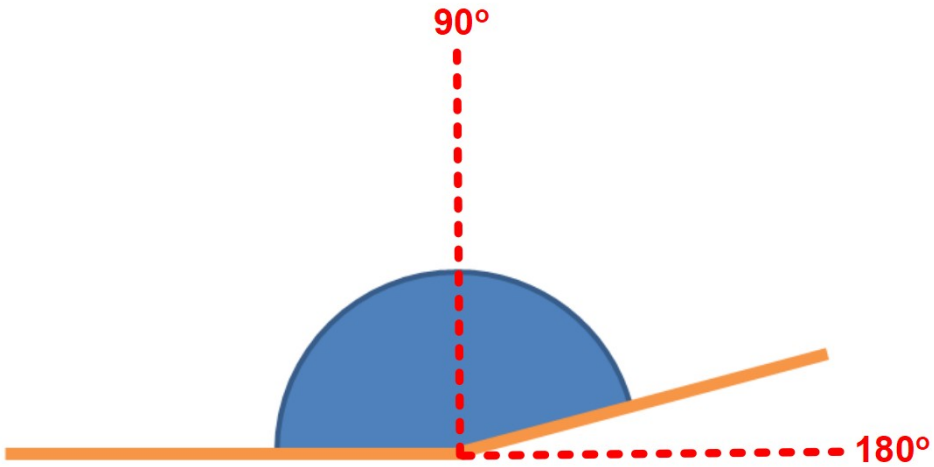
The angle must be between 91° and 179°

Yes → **Reflex Angle**

The angle must be between 181° and 359°

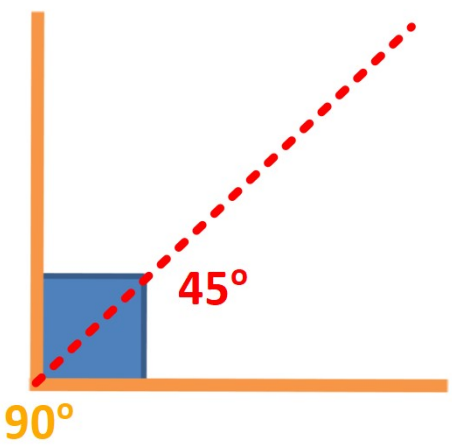
TBAT identify, estimate and compare angles

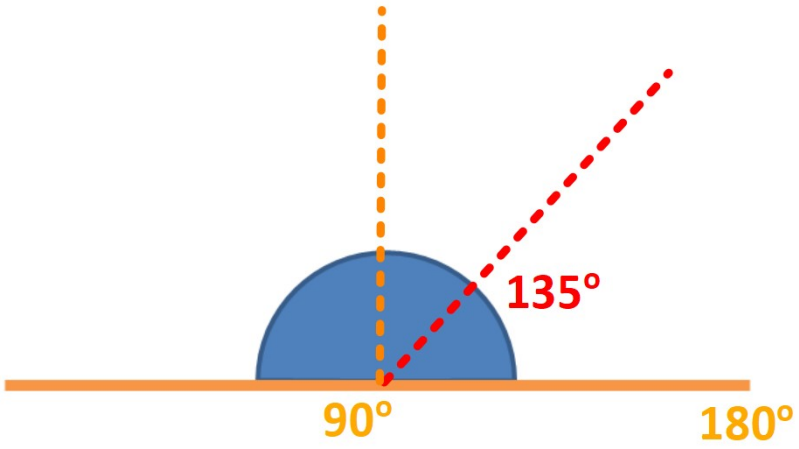
Look at the position of the angle in relation to the angles you know for certain (90°, 180°, 270° or 360°)



TBAT identify, estimate and compare angles

Knowing which angles are half way between 90 and 180 degree angles will help you!





TBAT identify, estimate and compare angles

Task:

Estimate the size of the angles on the sheet.

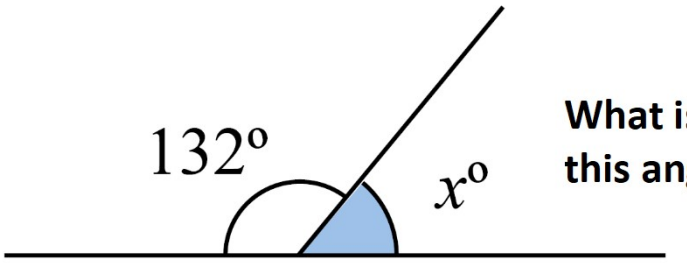
Make sure to use the unit of measurement for degrees.

Steps to success:

- **Decide whether the angle is acute, obtuse or reflex**
- **Look at the position of the angle in relation to the angles you know for certain (90°, 180°, 270°, 360°)**

Wednesday

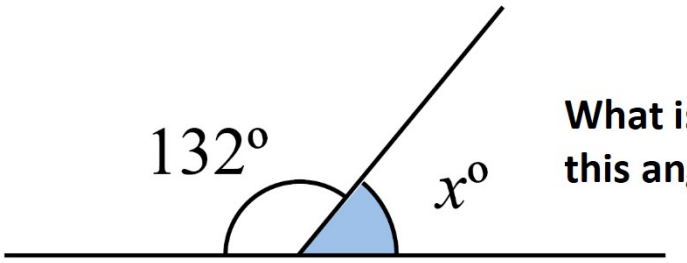
20.1.21
TBAT calculate missing angles on a straight line



What is the size this angle?

Remember: angles on a straigt line always add to 180°

20.1.21
TBAT calculate missing angles on a straight line



What is the size this angle?

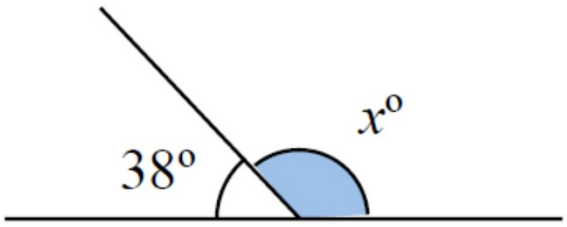
180 - 132 = 48

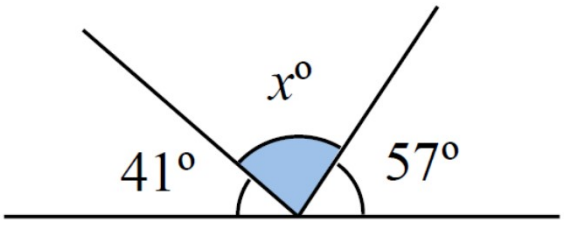
angle x = 48°

Remember: angles on a straigt line always add to 180°

TBAT calculate missing angles on a straight line

Subtract the known angles from 180 to find the missing angle:





Remember: angles on a straigt line always add to 180°

TBAT calculate missing angles on a straight line

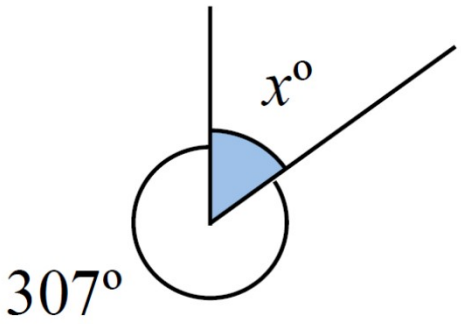
Task:

Calculate the size of the missing angles

Thursday

TBAT calculate missing angles around a point

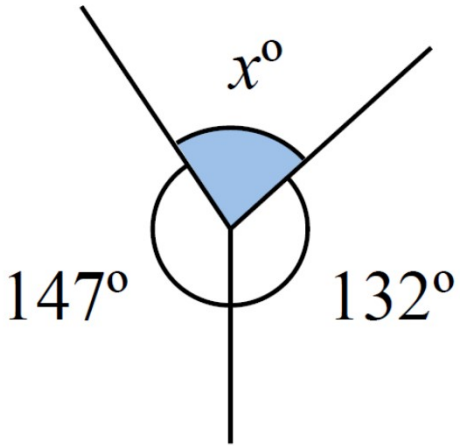
Angles around a point always add to 360°



How can we find angle x?

TBAT calculate missing angles around a point

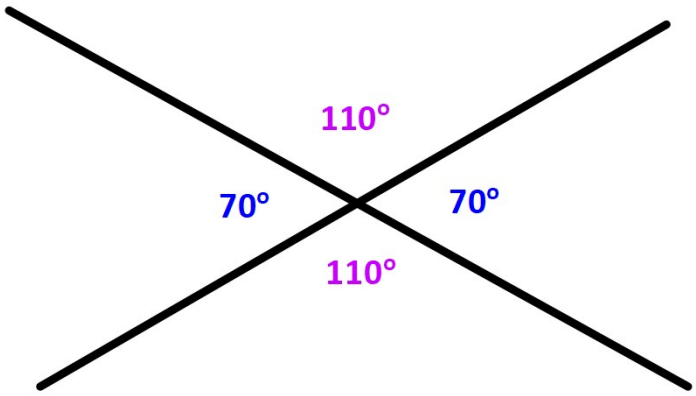
How can we find angle x?



TBAT calculate missing angles around a point

If you are going to try the Gold challenge, look at these slides:

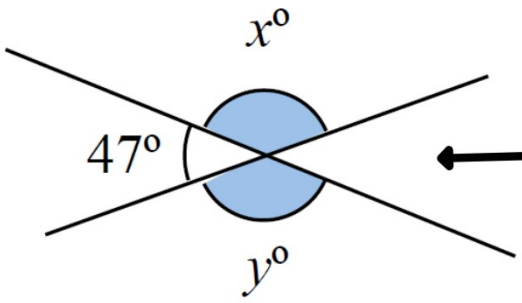
When two lines cross over each other (intersect) the angles that are made which are opposite each other will always be equal:



Remember: angles around a point always add to 360°

TBAT calculate missing angles around a point

What are the sizes of the missing angles?



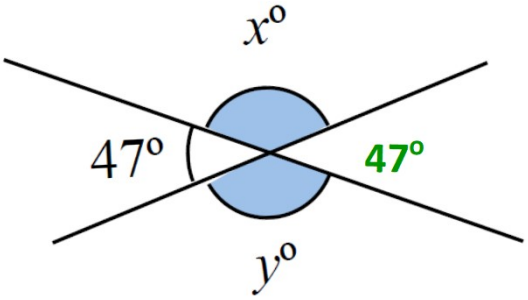
This angle is equal to its opposite angle

Angles x and y are also equal

Remember: angles around a point always add to 360°

TBAT calculate missing angles around a point

What are the sizes of the missing angles?



Step 1 - Add together the angles you do know: **47 + 47 = 94**

Step 2 - Subtract that answer from 360: **360 - 94 = 266**

Step 3 - Halve that answer to get the 2 missing angles: **266 halved = 133**

angle x = 133° **angle y = 133°**

Step 4 - Add them altogether to check they equal 360:

47 + 47 + 133 + 133 = 360

TBAT calculate missing angles around a point

Task:

Silver: Find the missing angles around a point

Gold: Find the missing angles on pairs of intersecting lines