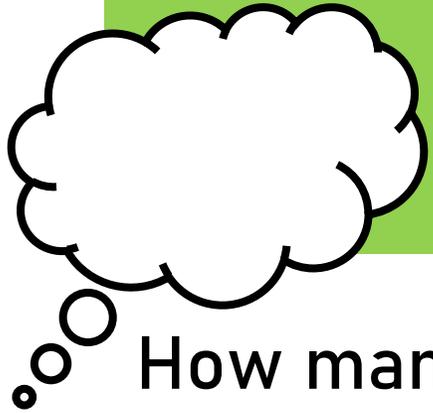


Lesson 3

L.O: I am learning to calculate angles.

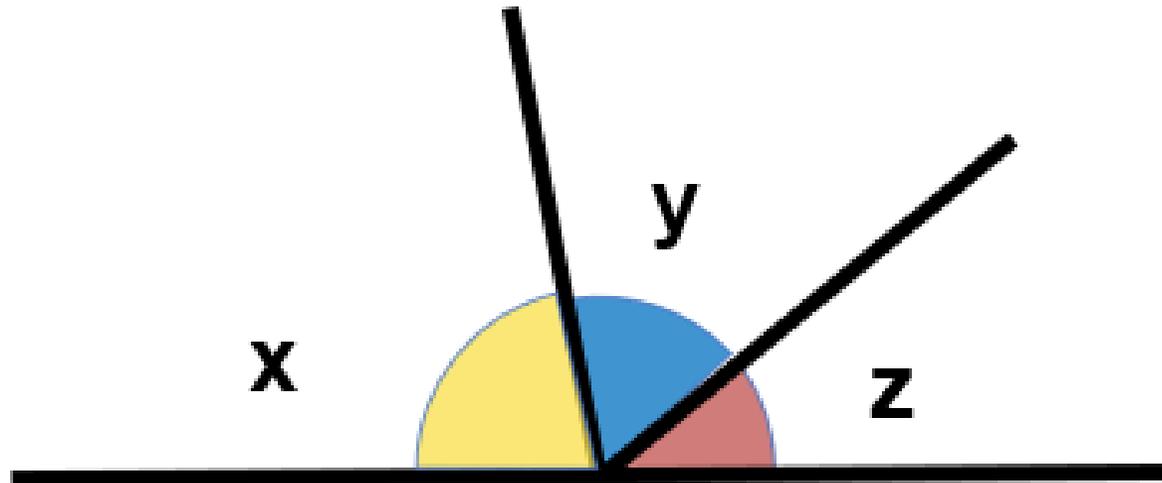
Starter



How many different statements can you think of related to these angles?

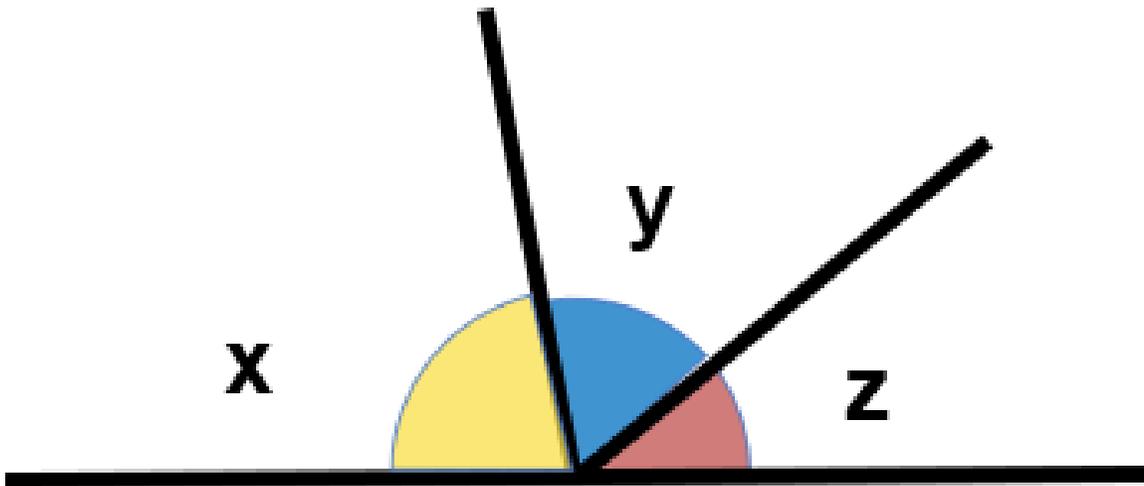
HINT: Think about...

- ✓ The types of angle you can see
- ✓ What the angles add up to along a straight line



Starter

How many different statements can you think of related to these angles?



- $X = \text{acute}$
- $Y = \text{acute}$
- $X = \text{acute}$
- $X + Y = \text{obtuse}$
- $Z + Y = \text{obtuse}$
- $x + y + z = 180^\circ$
- $180^\circ - (x + y) = z$
- $180^\circ - (z + y) = x$
- $180^\circ - (x + z) = y$

Calculating Angles



Norman says,

I do not need to measure angles to calculate them.

Can you explain why Norman is correct?

ANSWERS: Calculating Angles

Norman says,



I do not need to measure angles to calculate them.

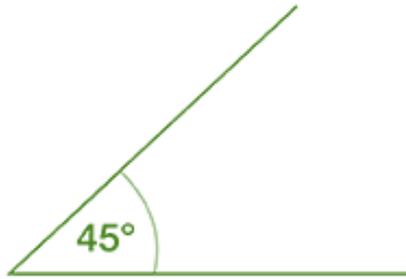
Can you explain why Norman is correct?

Norman is correct because using given measurements known facts about right angles, straight lines and full turns can help calculate missing angles.

TYPES OF ANGLES

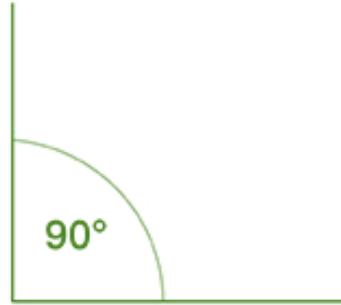
ACUTE ANGLE

An angle less than 90°



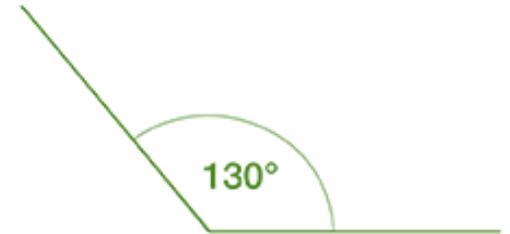
RIGHT ANGLE

An angle that is exactly 90°



OBTUSE ANGLE

An angle that measures between 90° and 180°



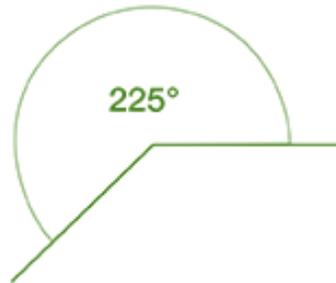
STRAIGHT ANGLE

An angle that is exactly 180°



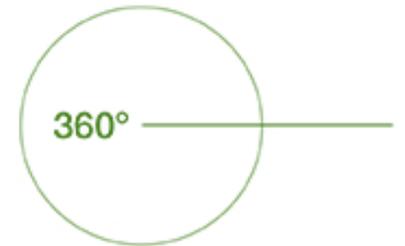
REFLEX ANGLE

An angle that measures between 180° and 360°

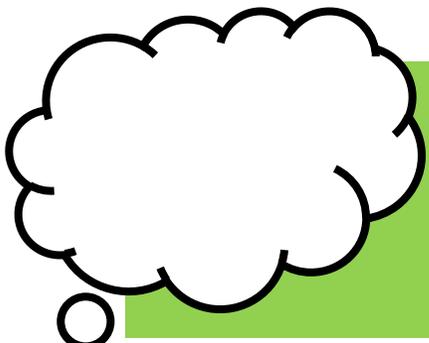


FULL ANGLE

An angle that is exactly 360°

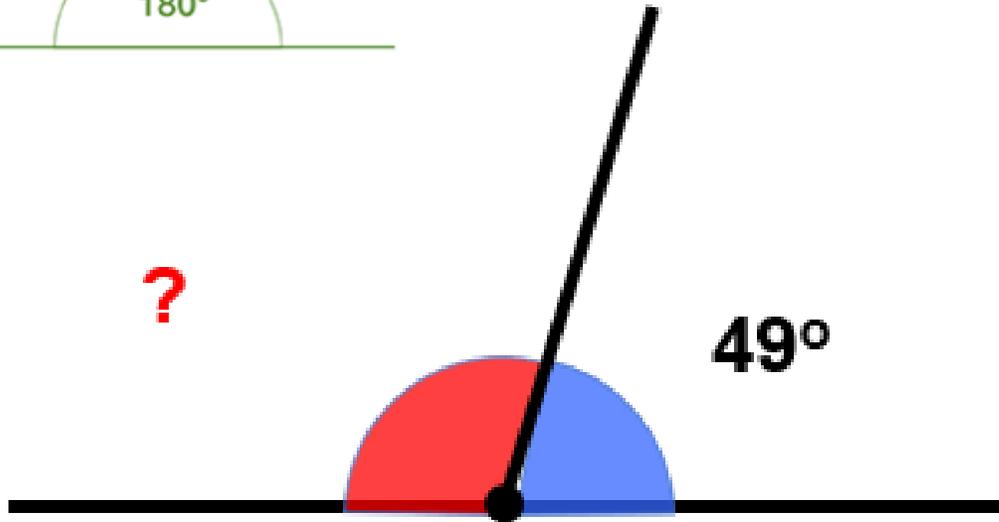


Angles on a straight line



STRAIGHT ANGLE

An angle that is exactly 180°



Angles on a straight line are equal to 180° .

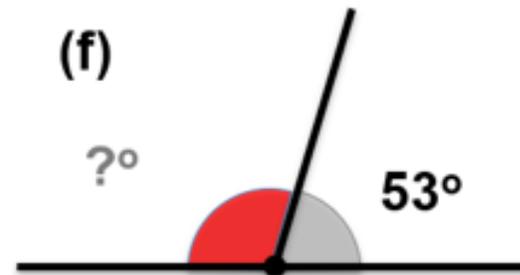
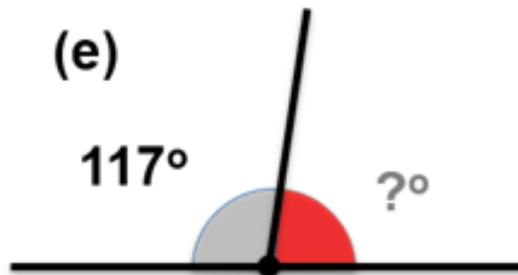
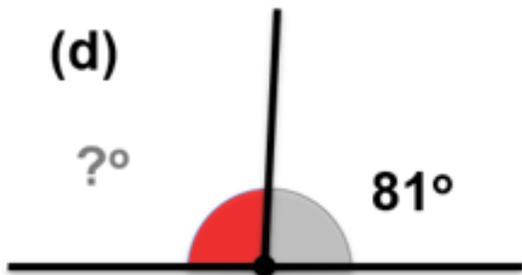
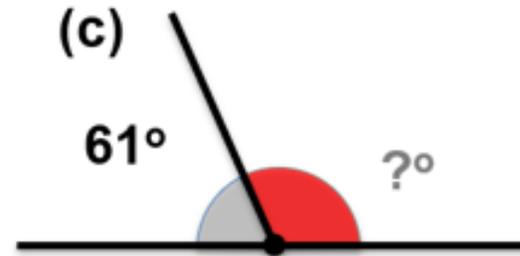
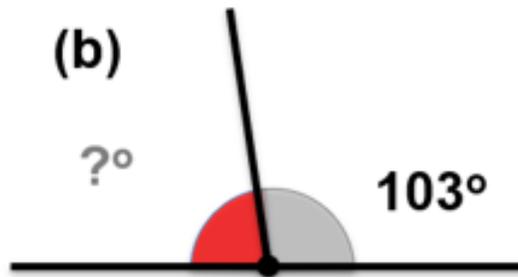
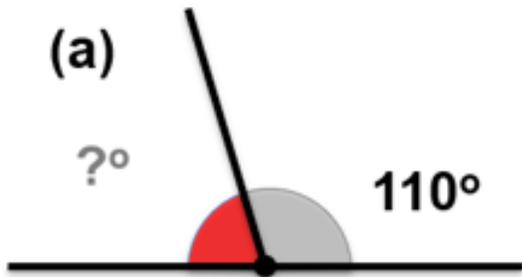
Therefore to find the missing angle you take away the angles already known from 180° to find your answer.

$$180^\circ - 49^\circ = ?$$

What is the missing red angle worth?

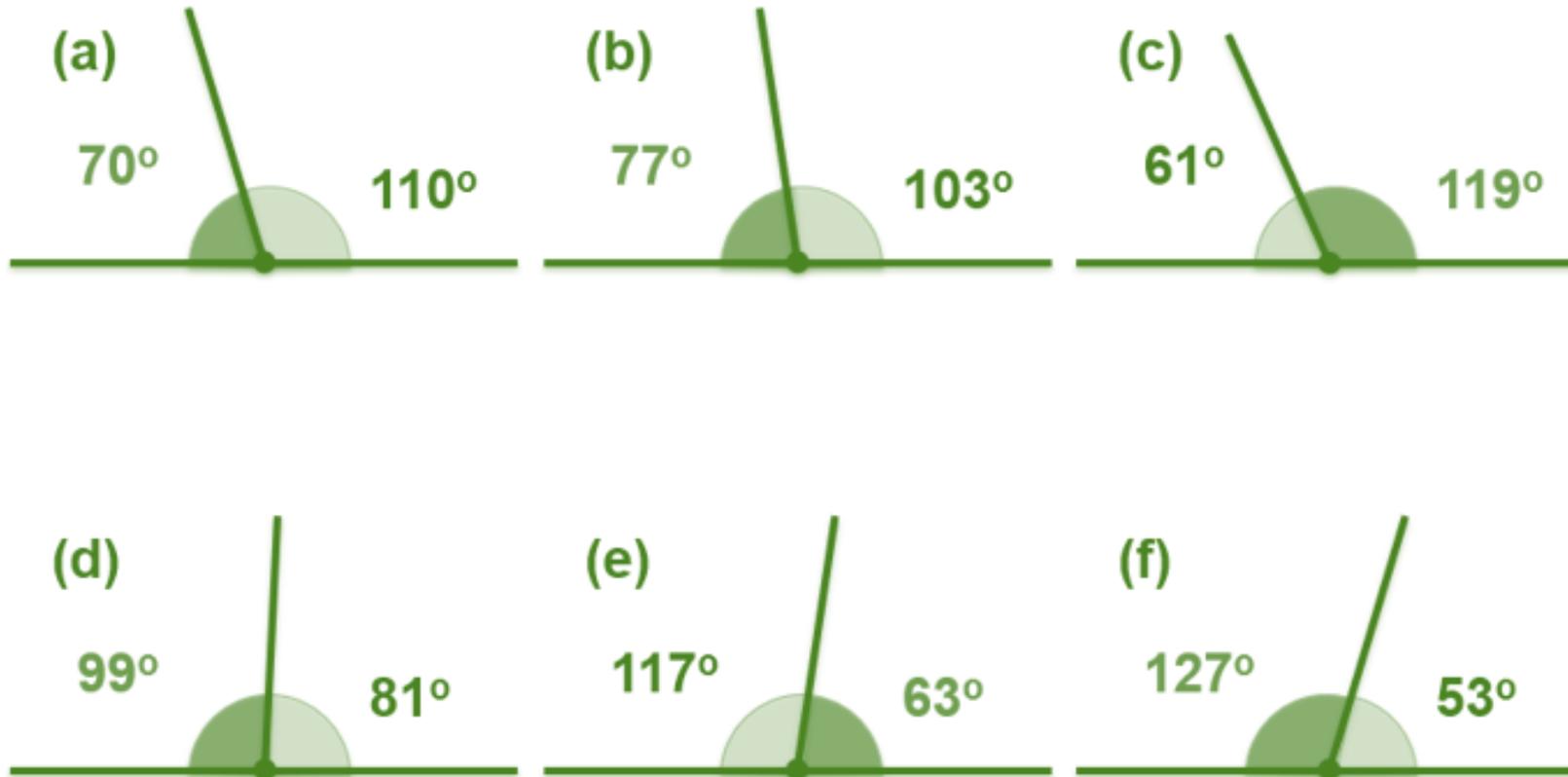
Calculating Angles

Calculate the missing angles using your knowledge of angles.



ANSWERS: Calculating Angles

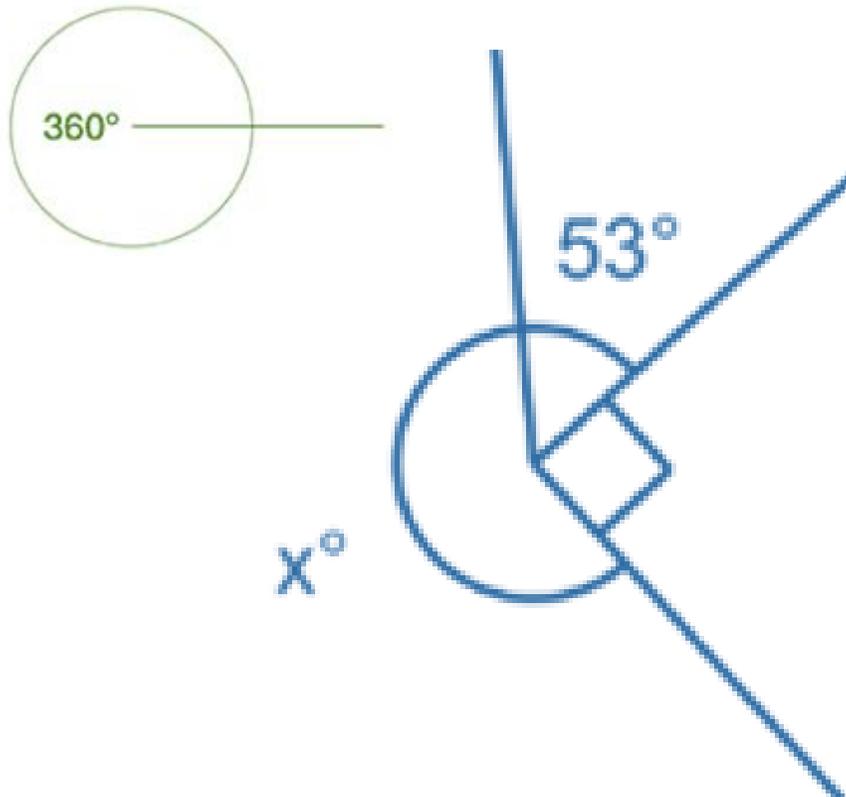
Calculate the missing angles using your knowledge of angles.



Angles on a straight line

FULL ANGLE

An angle that is exactly 360°



Angles on a straight line are equal to 360° .

Therefore to find the missing angle you take away the angles already known from 360° to find you answer. (its easier to add the known angles up first)

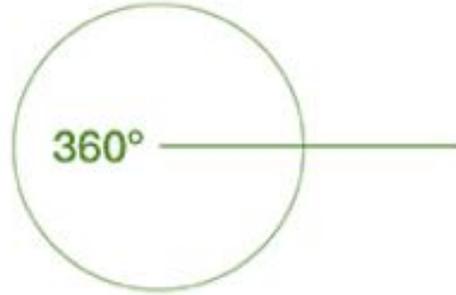
$$53^\circ + 90^\circ = ?$$

$$180^\circ - ? = ?$$

What is the missing red angle worth?

FULL ANGLE

An angle that is exactly 360°



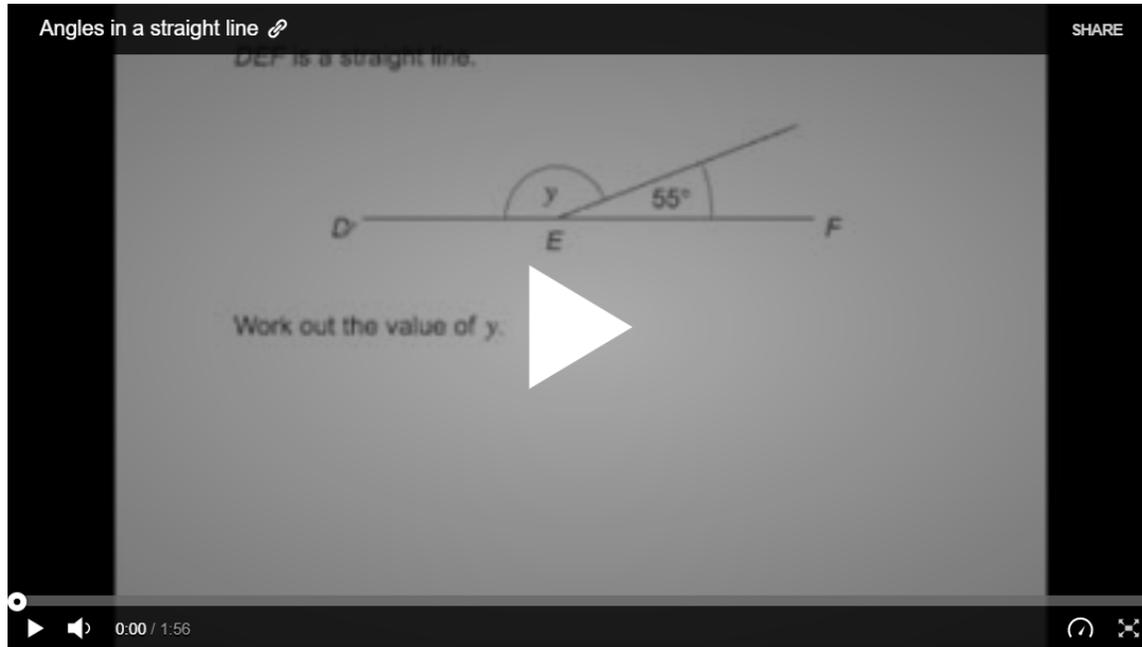
What does each angle measure?



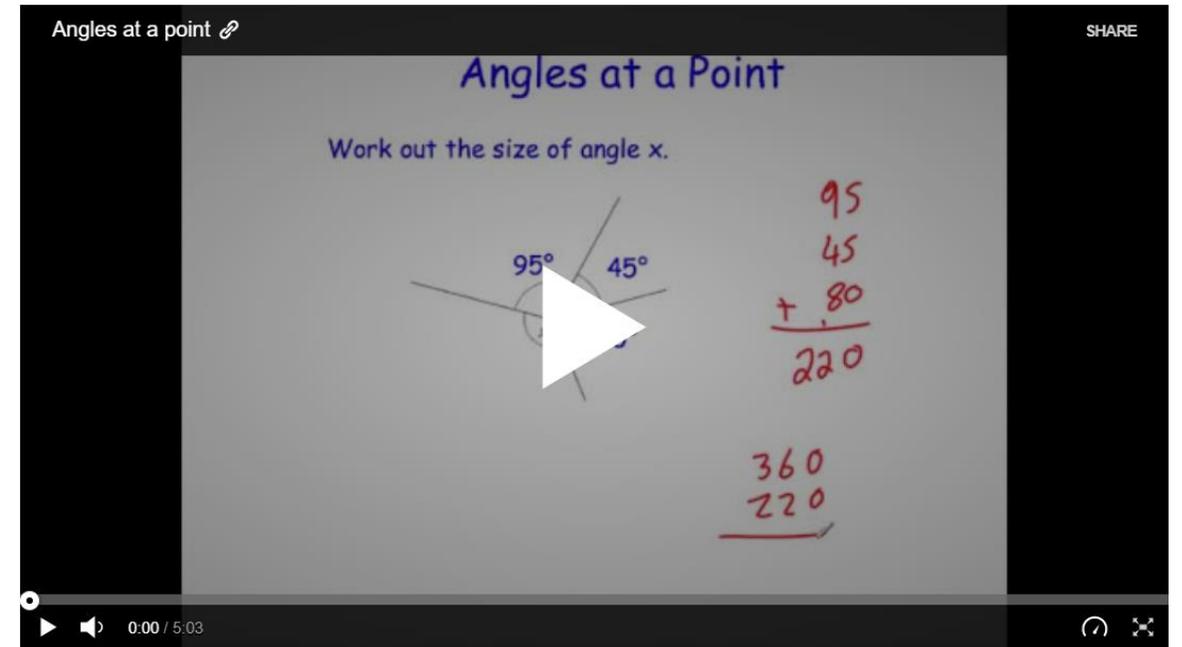
Six equal angles all meet around a point.

Nine equal angles all meet around a point.

Some helpful videos



<https://corbettmaths.com/2013/12/19/angles-straight-line-video-35/>



<https://corbettmaths.com/2012/08/10/angles-in-a-full-circle/>

Once you have finished turn this assignment in on Google Classroom.



Task

All	All of you must complete the fluency section.
Most	Most of you will complete the fluency and reasoning sections.
Some	Some of you will complete the fluency, reasoning, and problem-solving sections.

Try your best – it is all we can ask for! 😊

This video may help if you are stuck at any point:

- <https://corbettmaths.com/2013/12/19/angles-straight-line-video-35/>
- <https://corbettmaths.com/2012/08/10/angles-in-a-full-circle/>

Week 1_Maths_Lesson 3

Lesson 3

L.O I am learning to calculate angles.

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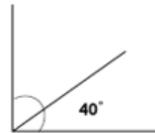
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Fluency

Key vocabulary: Acute, Obtuse, Right, Straight line, Reflex

Your answer

2a. What is the missing angle?



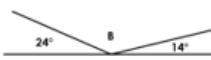
2b. Identify the triangle which has a right angle.



Complete the stem sentence.

Angles on a straight line total _____ degrees.

Use what you know to find all of the missing angles.



Week 1_Maths_Lesson 3

One angle of the stained glass window measures 108° . The other angles are equal.

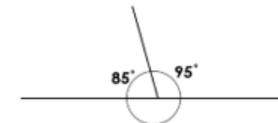


What is the size of the equal angles?

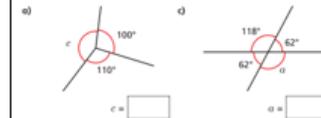
Complete the stem sentence.

Angles around a _____ total _____ degrees.

7a. What is the missing angle?



Work out the unknown angles.



12b. True or false?

79° and 126° and 155° is equal to a full turn.