

Have a go at these arithmetic calculations.

$$1. \quad \frac{7}{10} + \frac{2}{5} =$$

$$2. \quad 400,824 - 12,490 =$$

$$3. \quad 35 \times 36 =$$


$$4. \quad 95\% \text{ of } 480 =$$

# Maths wow word of the week!

## **Intersecting**

When two or more lines cross each other, they are called intersecting lines.





Lesson 31

Learning Question:

Can I revise my knowledge and understanding of angles?

Success Criteria:

- Recognise different types of angle:
  - Acute angles
  - Obtuse angles
  - Right angles
  - Reflex angles
- Know that angles at a point total  $360^\circ$ .
- Label angles correctly using capital letters.

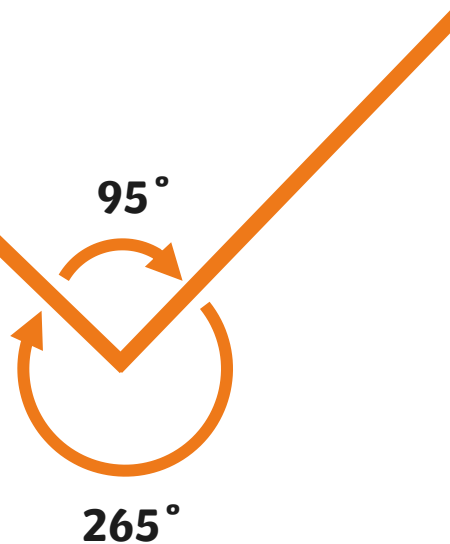
Vocabulary

- Angle
- Acute
- Obtuse
- Right angle
- Reflex
- Degrees
- Measure
- Turn
- Corner
- Straight line

# Angles at a Point

An angle is created when two straight lines meet at a point.

Angles at a point  
total  $360^\circ$ .



An angle is the measure of rotation from one line to the other either clockwise or anticlockwise.

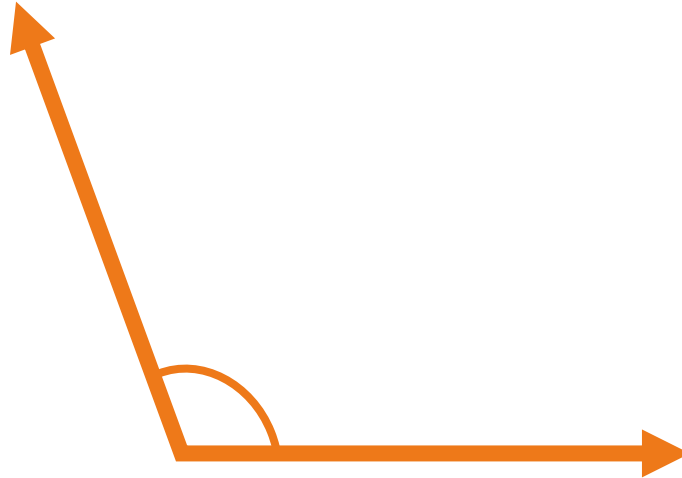
# Types of Angle

Is the angle shown acute, obtuse or reflex?

**Acute**

**Obtuse**

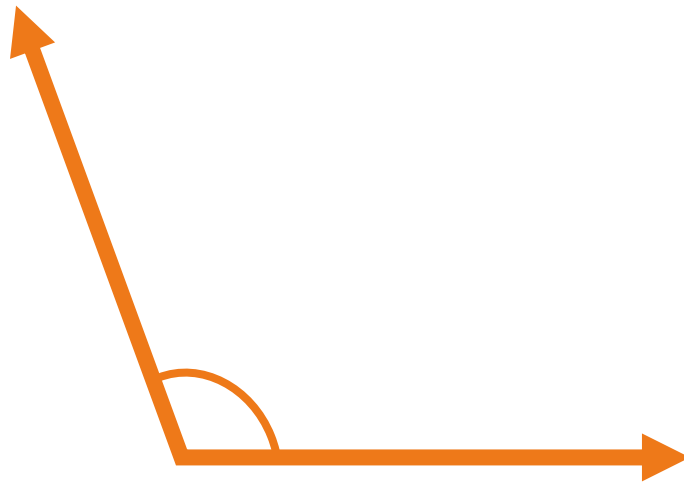
**Reflex**



**Answer on next page**

Answer:

Obtuse



An *obtuse angle* is one that measures between  $90^\circ$  and  $180^\circ$  - it is greater than  $90^\circ$  but smaller than  $180^\circ$ .

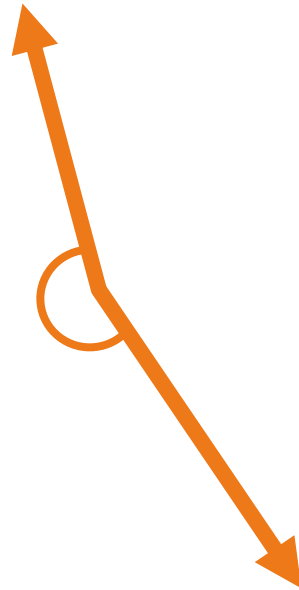
# Types of Angle

Is the angle shown acute, obtuse or reflex?

Acute

Obtuse

Reflex

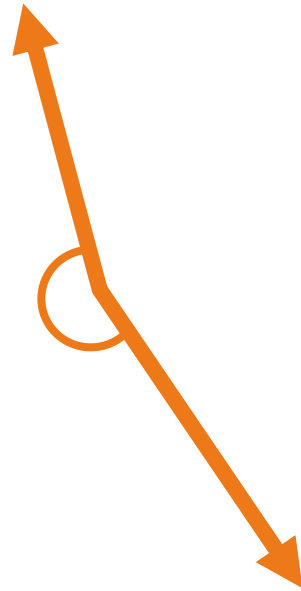


Answer on next page



Answer:

Reflex



A *reflex angle* is an angle that measures between  $180^\circ$  and  $360^\circ$  - it is greater than  $180^\circ$  but less than  $360^\circ$ .

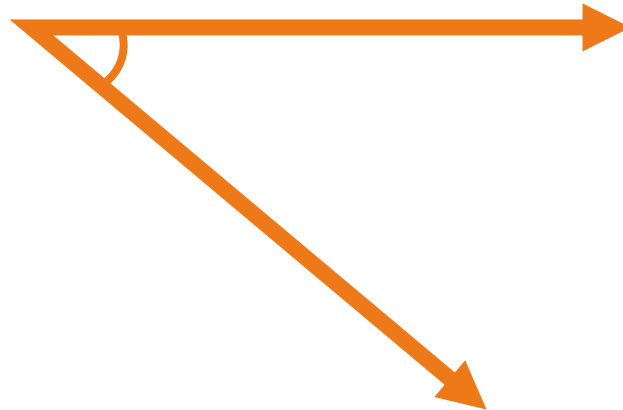
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Acute

Obtuse

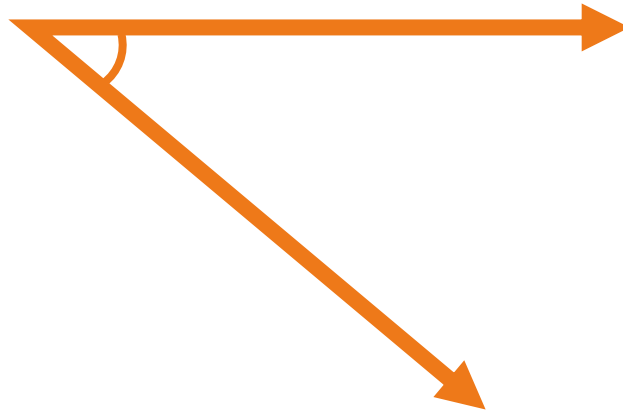
Reflex



Answer on next page

Answer:

Acute



An *acute angle* is an angle that measures less than  $90^\circ$ .

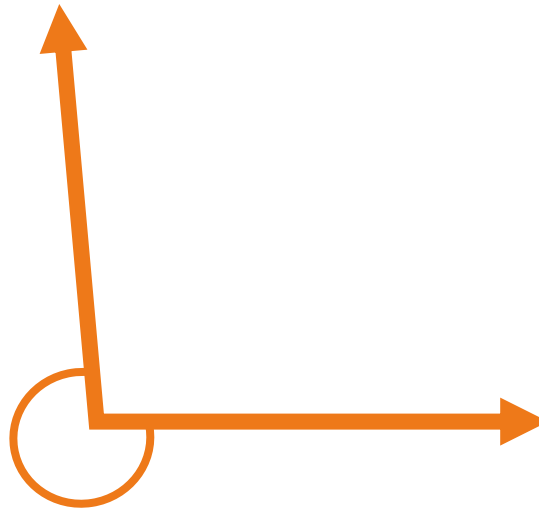
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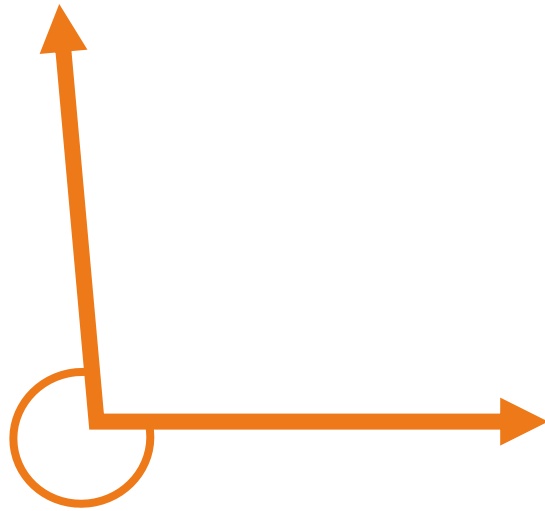
Reflex



Answer on next page

Answer:

Reflex



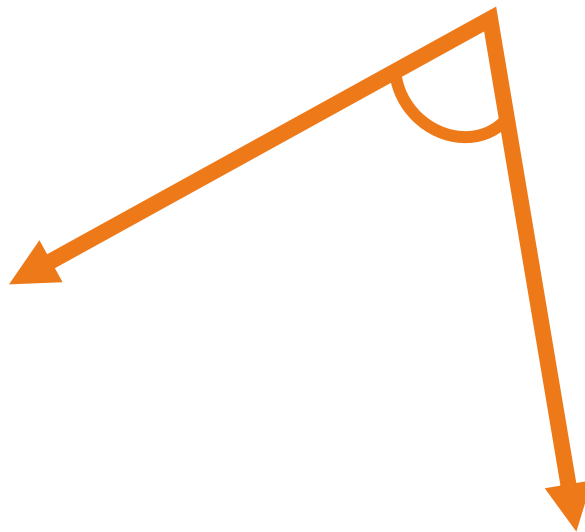
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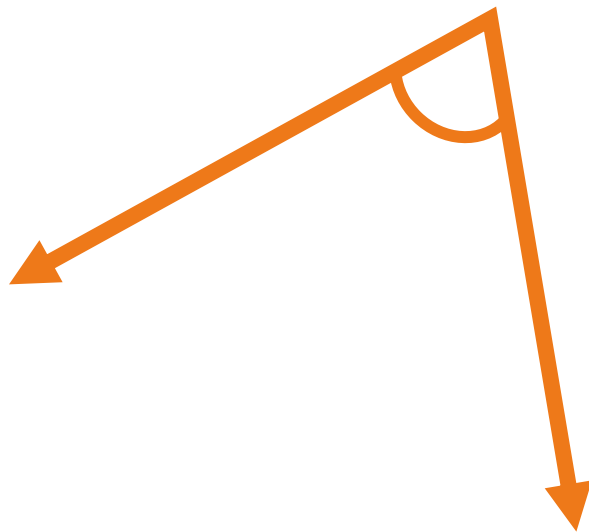
Reflex



Answer on next page

Answer:

Acute



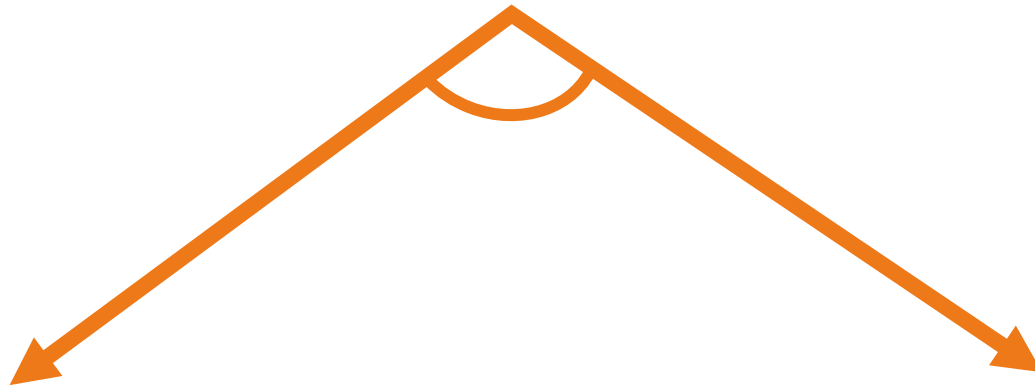
# Types of Angle

Is the angle shown acute, obtuse or reflex?

**Acute**

**Obtuse**

**Reflex**

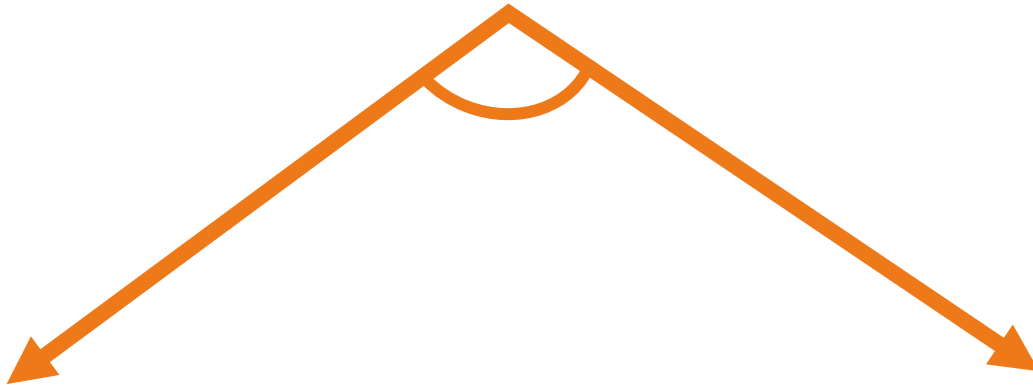


Answer on next page

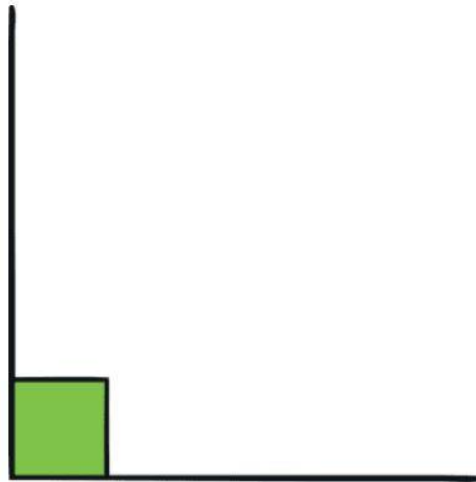


Answer:

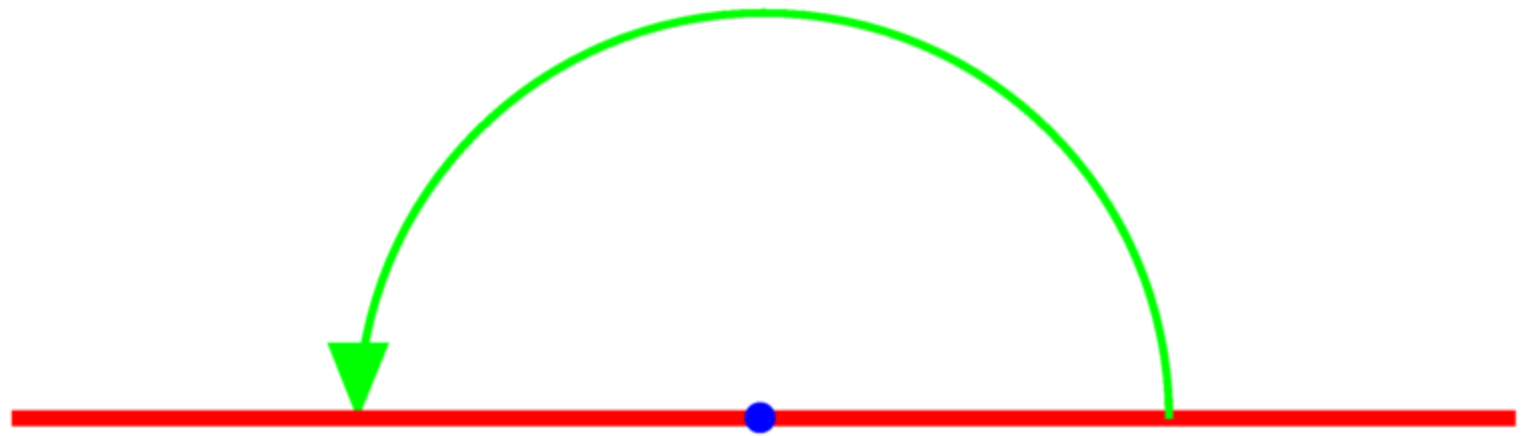
**Obtuse**



# Other types of angle



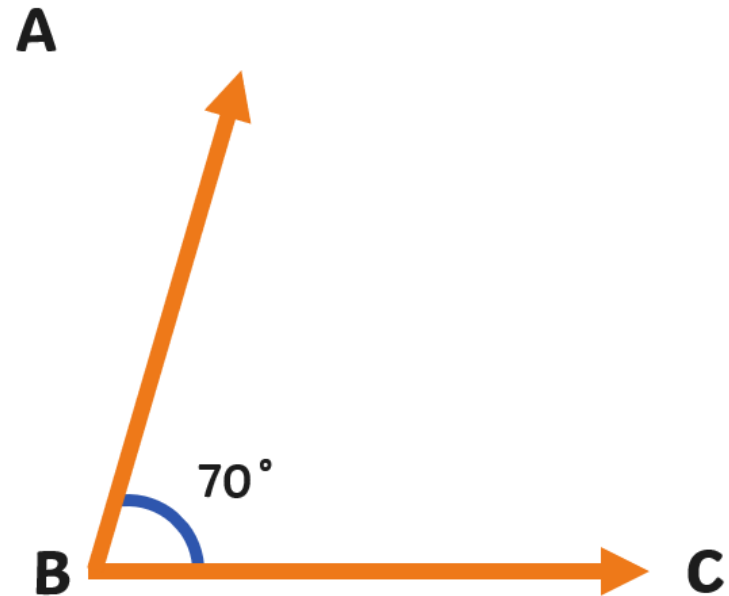
A *right angle* measures  $90^\circ$ .



An angle on a *straight line* measures  $180^\circ$ .

# Labelling Angles

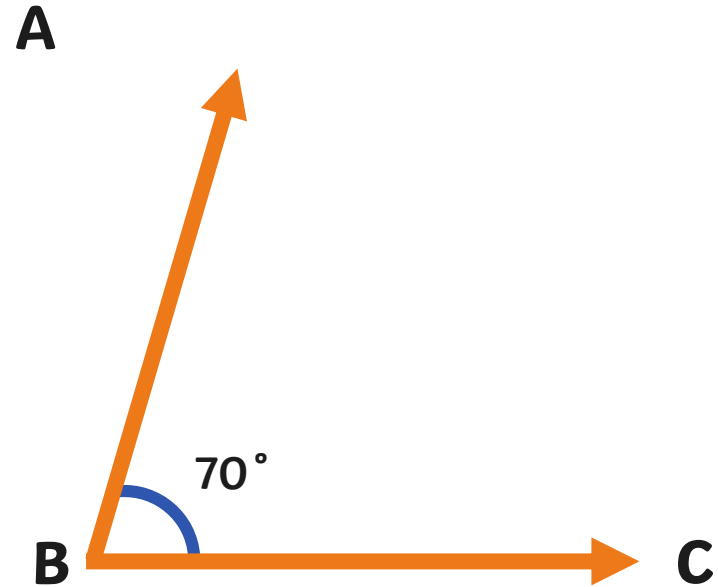
We label an angle using three uppercase, consecutive letters. The first and third letters indicate the two lines (arms) of the angle, and the middle letter indicates the point (vertex).



# Labelling Angles

We label an angle using three uppercase, consecutive letters. The first and third letters indicate the two lines (arms) of the angle, and the middle letter indicates the point (vertex).

To refer to an angle we use the symbol  $\sphericalangle$  and the letter of the vertex, or the three letters with the vertex letter in the middle.



$$\sphericalangle B = 70^\circ$$

or

$$\sphericalangle ABC = 70^\circ$$

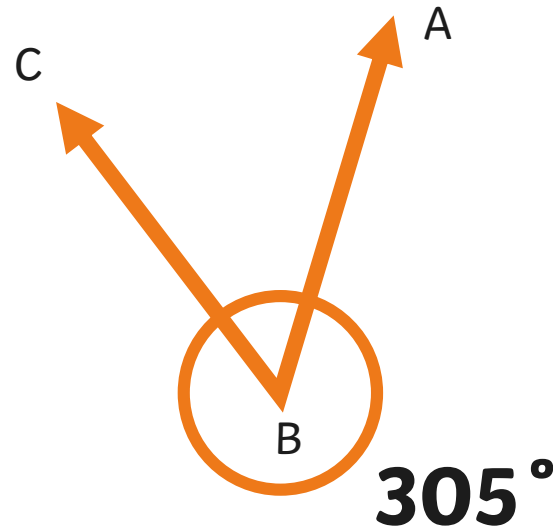
## *Your task:*

Complete both tasks:

- 1) Complete classify angles sheet.
- 2) Choose from three worksheets to find the missing angle about a point.

*Plenary:*

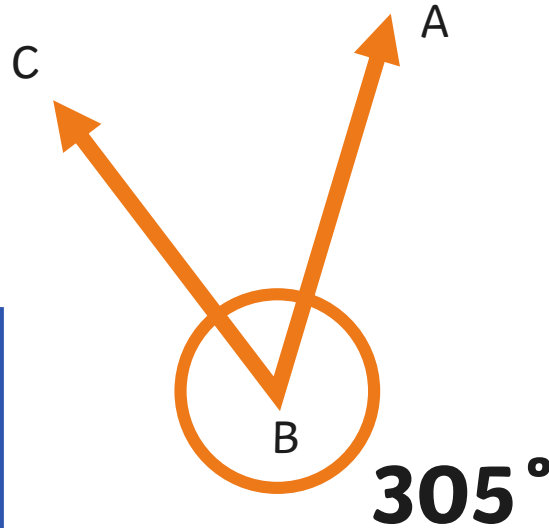
# True or False? Angle Calculations



$$\angle ABC = 55^\circ$$

Answer on next page

Answer:



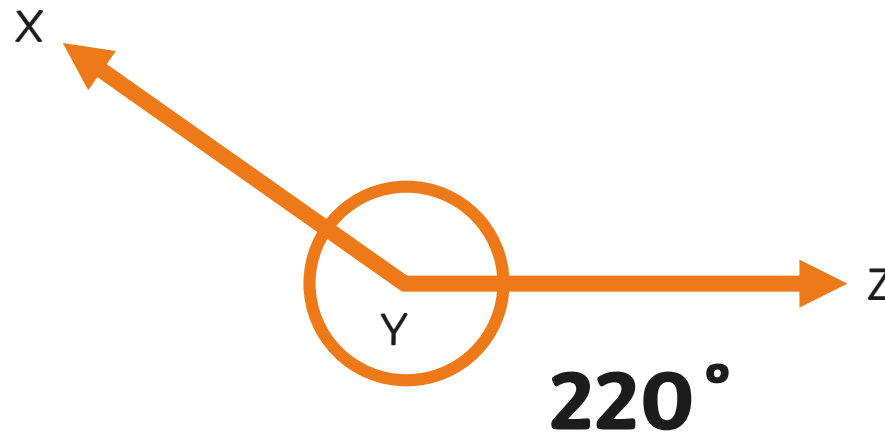
$$\angle ABC = 55^\circ$$

$$360 - 305 = 55 \quad \text{or}$$
$$305 + 55 = 360$$

True



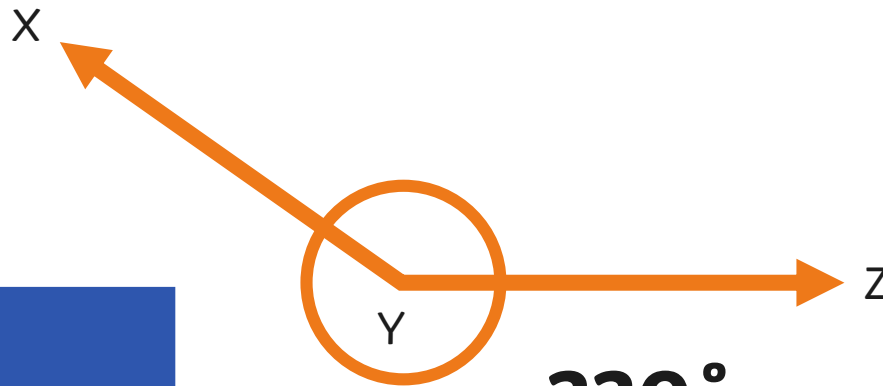
# True or False? Angle Calculations



$$\angle XYZ = 145^\circ$$

Answer on next page

Answer:



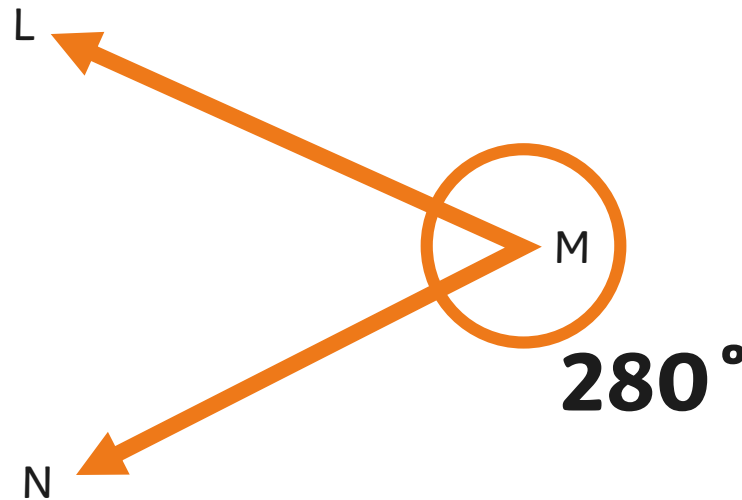
$$\angle XYZ = 145^\circ$$

**220°**

**False**

$$360 - 220 = 140 \text{ or}$$
$$220 + 145 = 365$$

# True or False? Angle Calculations

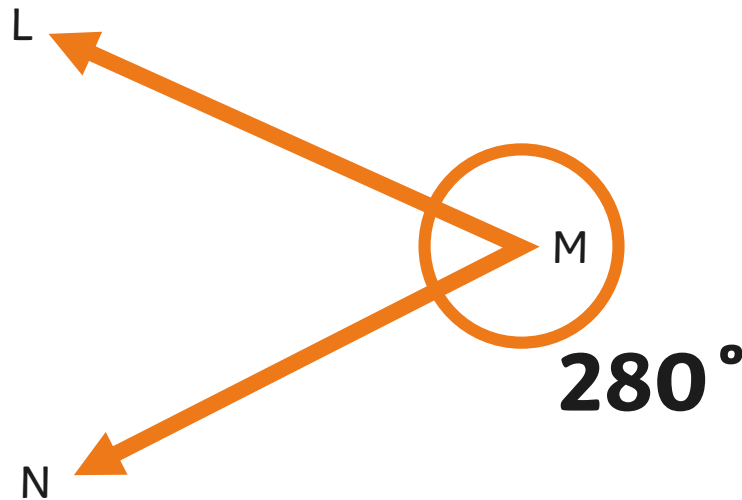


$$\angle NML = 145^\circ$$

Answer on next page

Answer:

$$\angle NML = 145^\circ$$



False

$$360 - 280 = 80 \text{ or}$$
$$280 + 145 = 425$$