# Types of angle
# Year 4

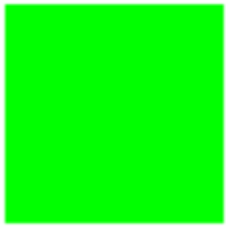
Properties of Shape

Sum5

# To be able to identify acute, obtuse and right angles

**Starter:**

Which shape is the odd one out? Why?



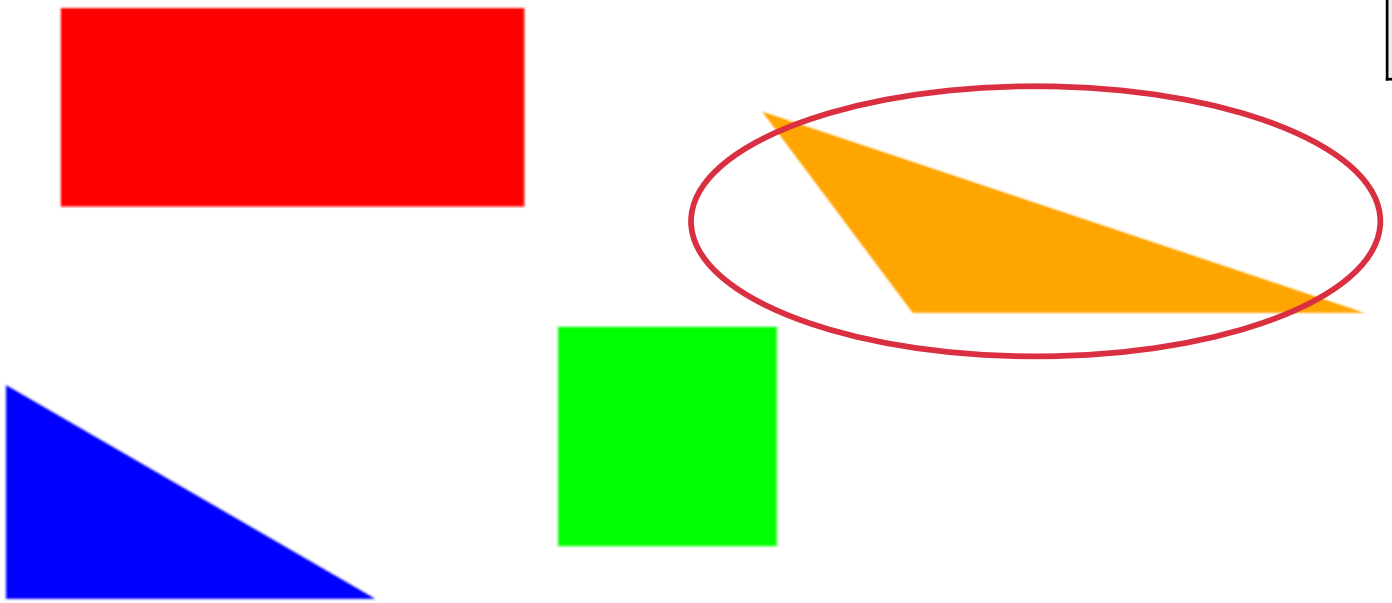
**Success Criteria:**

- ❑ I can explain the properties of acute, obtuse and right angles

# To be able to identify acute, obtuse and right angles

**Starter:**

Which shape is the odd one out? Why?



**Success Criteria:**

- ❑ I can explain the properties of acute, obtuse and right angles

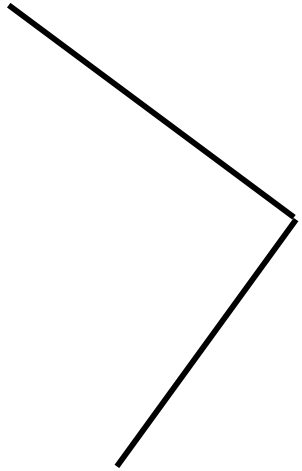
**The scalene triangle is the odd one out as it is the only shape NOT to have a right angle in it.**

# To be able to identify acute, obtuse and right angles

**Talking time:**

What angle is this?
What do you know about it?

What about this one?

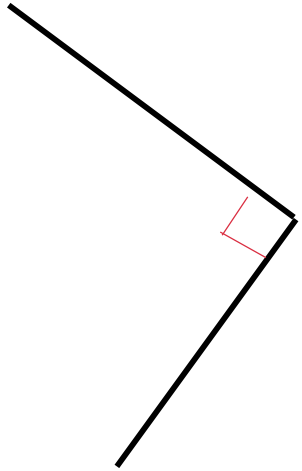


# To be able to identify acute, obtuse and right angles

**Talking time:**

What angle is this?
What do you know about it?

What about this one?



**Both angles are right angles they are just in a different position on the page. A right angle is two lines that meet at a 90 degree angle. This is shown by a little square where the two lines meet.**

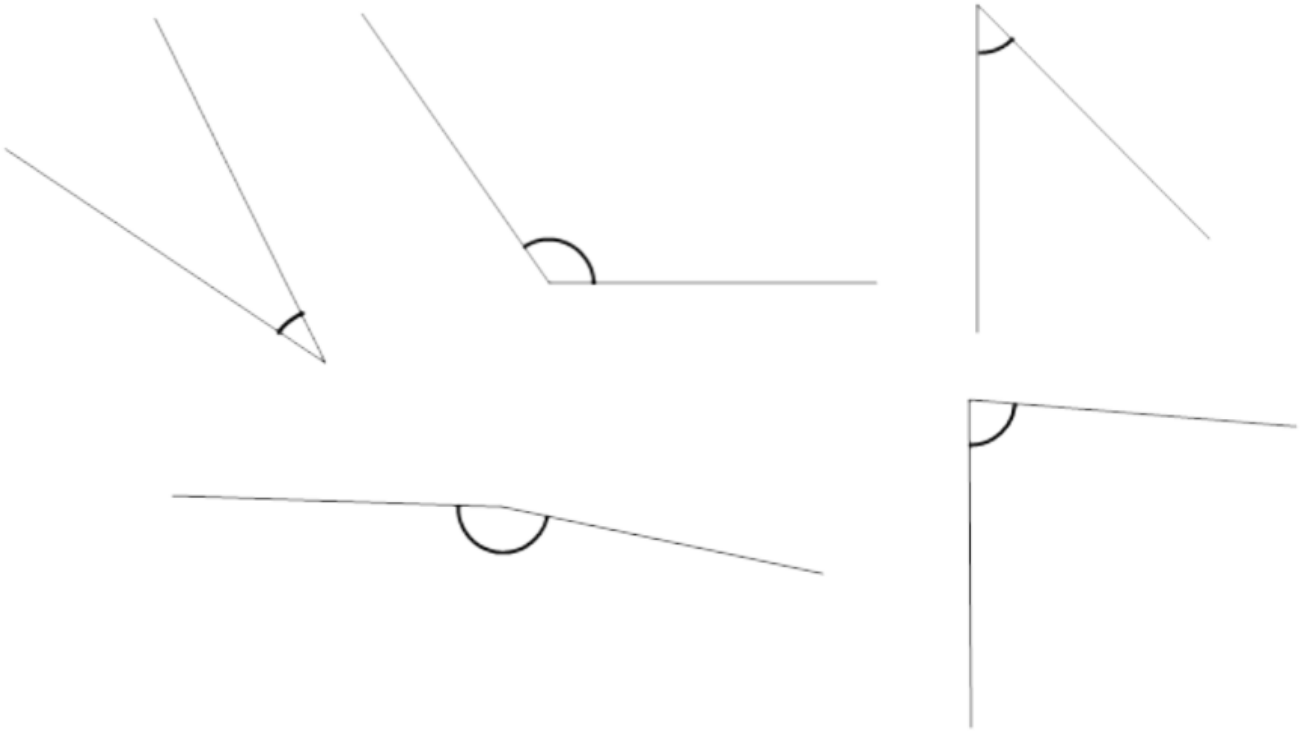
# To be able to identify acute, obtuse and right angles

**Talking time:**

Some angles are smaller than a right angle. Some angles are larger than a right angle.

Sort these angles into their two groups.

**Smaller than 90 degrees** **Larger than 90 degrees**



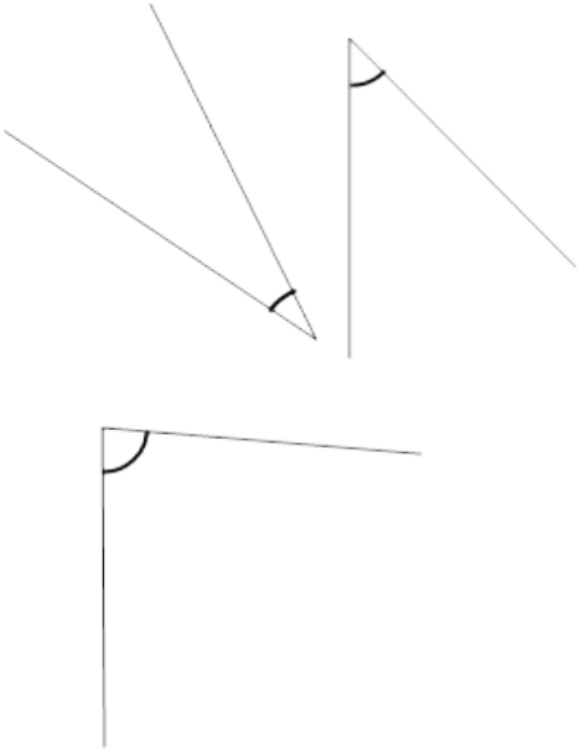
# To be able to identify acute, obtuse and right angles

**Talking time:**

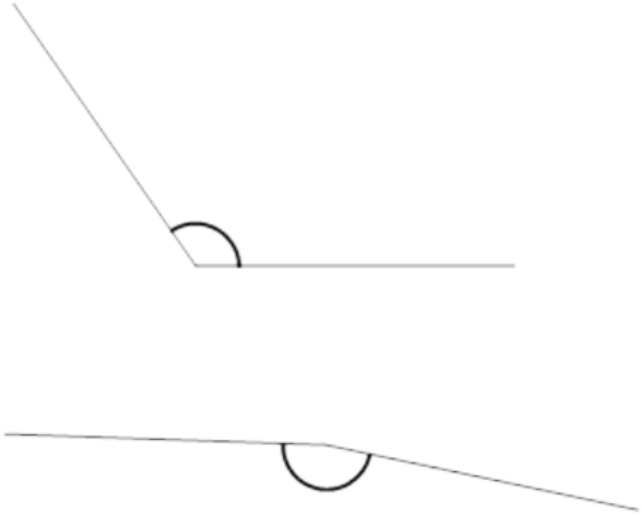
Some angles are smaller than a right angle. Some angles are larger than a right angle.

Sort these angles into their two groups.

**Smaller than 90 degrees**



**Larger than 90 degrees**

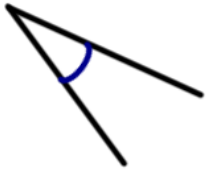


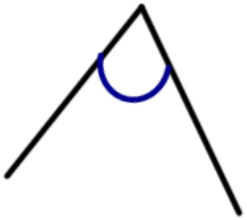
# To be able to identify acute, obtuse and right angles

**Activity 1:**

Right angles are _____ degrees.
Acute angles are _____ than right angles and are _____ than 90 degrees.
Obtuse angles are _____ than right angles and are _____ than 90 degrees.

Now Sort these angles into acute, obtuse and right angles.





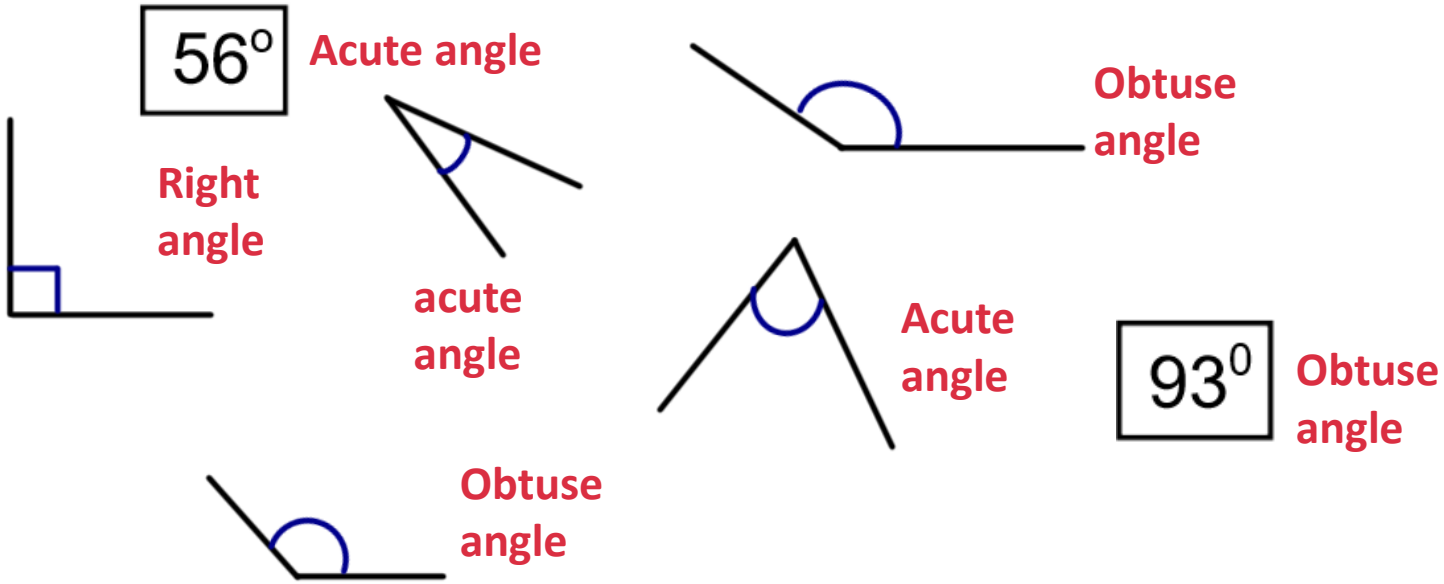
56°

$93^0$

# To be able to identify acute, obtuse and right angles

**Activity 1:**

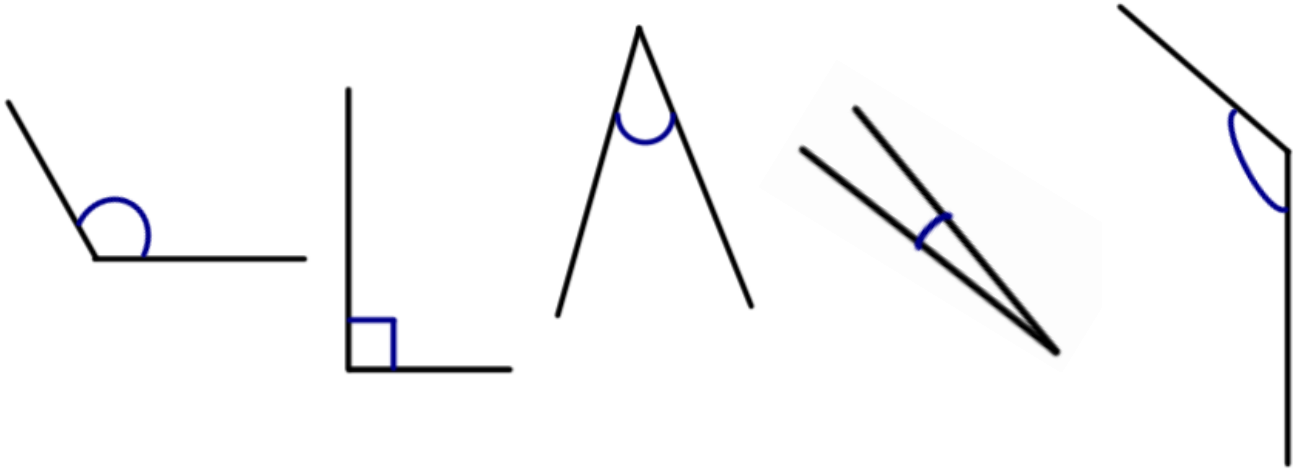
Right angles are **90** degrees.
Acute angles are **smaller** than right angles and are **less** than 90 degrees.
Obtuse angles are **larger** than right angles and are **greater** than 90 degrees.
Sort these angles into acute, obtuse and right angles.



# To be able to identify acute, obtuse and right angles

**Talking time:**

Match the angles with the correct label. Be careful there are some red herrings!

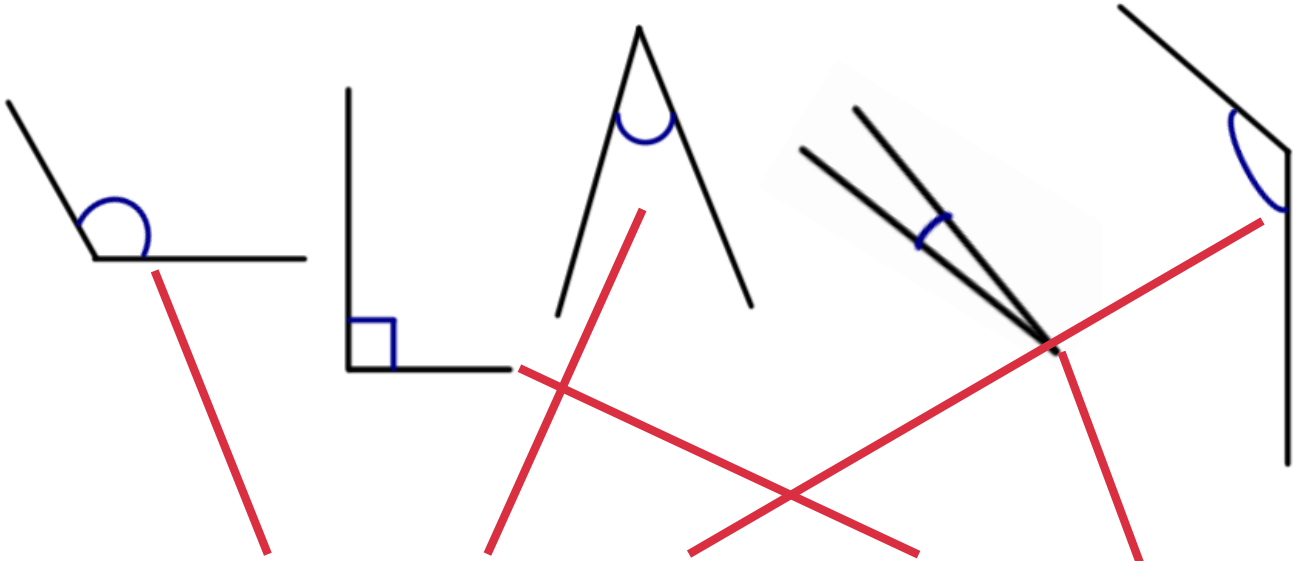


Acute Obtuse Acute Obtuse Right Angle Acute Acute

# To be able to identify acute, obtuse and right angles

**Talking time:**

Match the angles with the correct label. Be careful there are some red herrings!



Acute Obtuse Acute Obtuse Right Angle Acute Acute

# To be able to identify acute, obtuse and right angles

**Activity 2:**

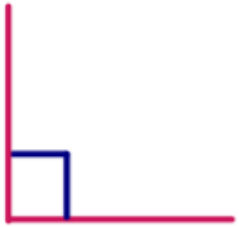
Draw a right angle in your book.
Using the right angle as a guide, draw two acute angles and two obtuse angles.

*Using the right angle at 90 degrees, estimate the size of your angles.*

# To be able to identify acute, obtuse and right angles

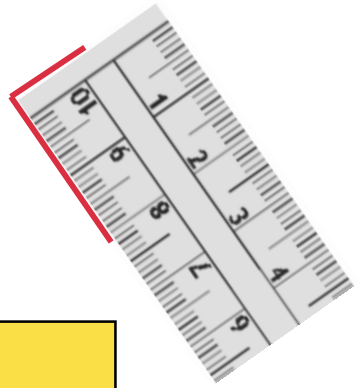
**Activity 2:**

Draw a right angle in your book.



Using the right angle as a guide, draw two acute angles and two obtuse angles.

Or any other acute and obtuse



*Using the right angle at 90 degrees, estimate the size of your angles.*

# To be able to identify acute, obtuse and right angles

**Talking time:**

Paul says “ I know this angle is acute.”

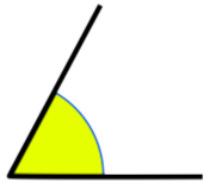
Libby says “ I know the angle is smaller than a right angle.”

Tabatha says “ I think the angle is less than 90 degrees.”

Who do you agree with? Explain why.

# To be able to identify acute, obtuse and right angles

**Talking time:**



Paul says “ I know this angle is acute.”

Libby says “ I know the angle is smaller than a right angle.”

Tabatha says “ I think the angle is less than 90 degrees.”

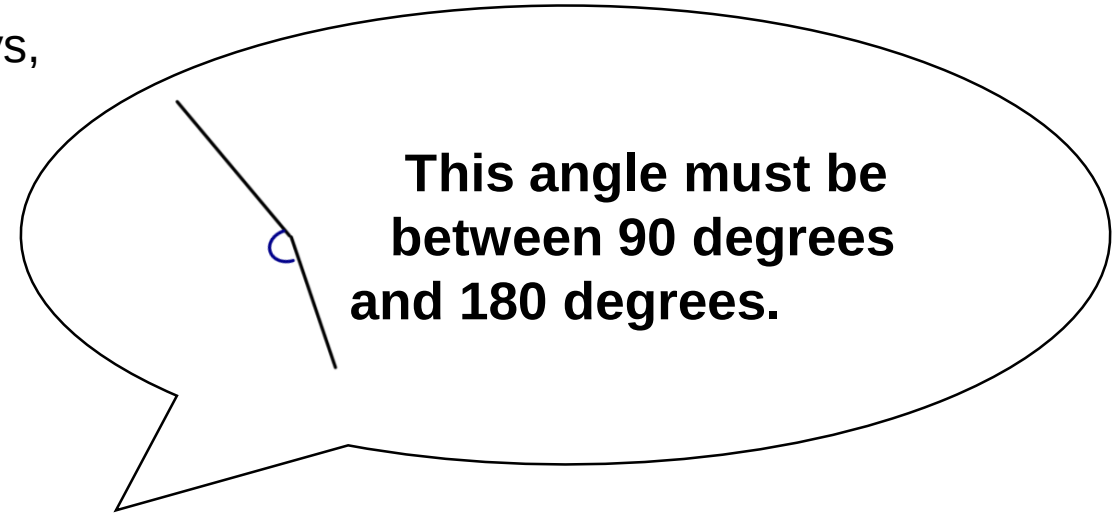
Who do you agree with? Explain why.

**All are correct. An angle smaller than a right angle is called acute. The angle is smaller than a right angle because the line has not reached vertical yet and an acute angle must be between 0 and 90 degrees.**

# To be able to identify acute, obtuse and right angles

**Activity 3:**

Polly says,

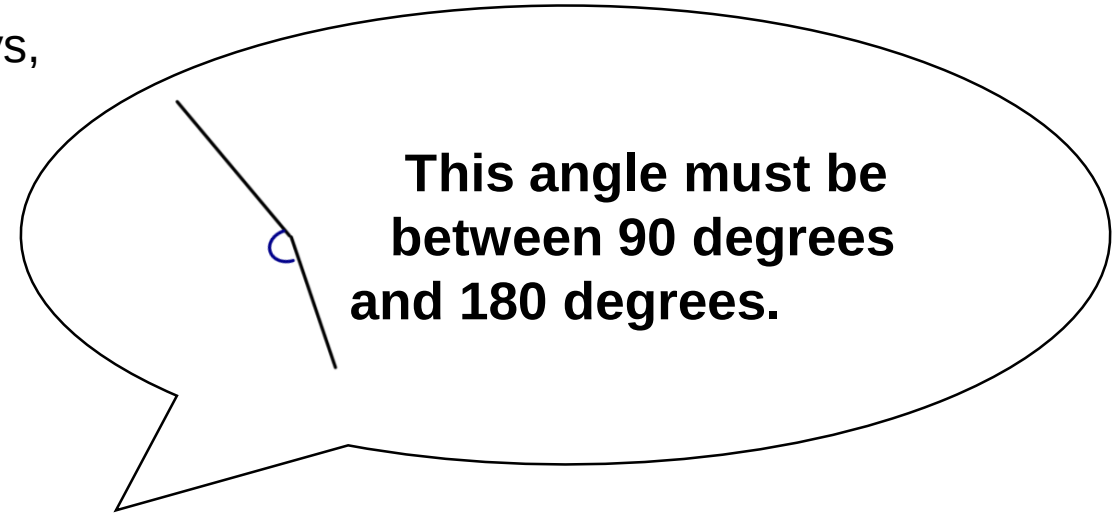



Explain why Polly is correct.

# To be able to identify acute, obtuse and right angles

**Activity 3:**

Polly says,



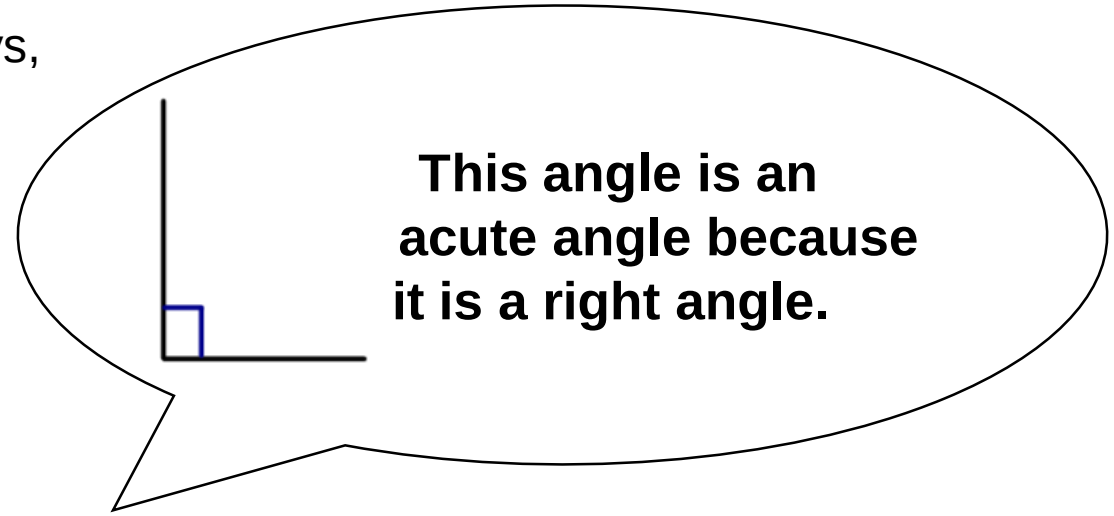

Explain why Polly is correct.

The angle is clearly bigger than a right angle so is an obtuse angle. Obtuse angles are bigger than 90 degrees but smaller than 180 degrees.

# To be able to identify acute, obtuse and right angles

**Activity 4:**

Mark says,

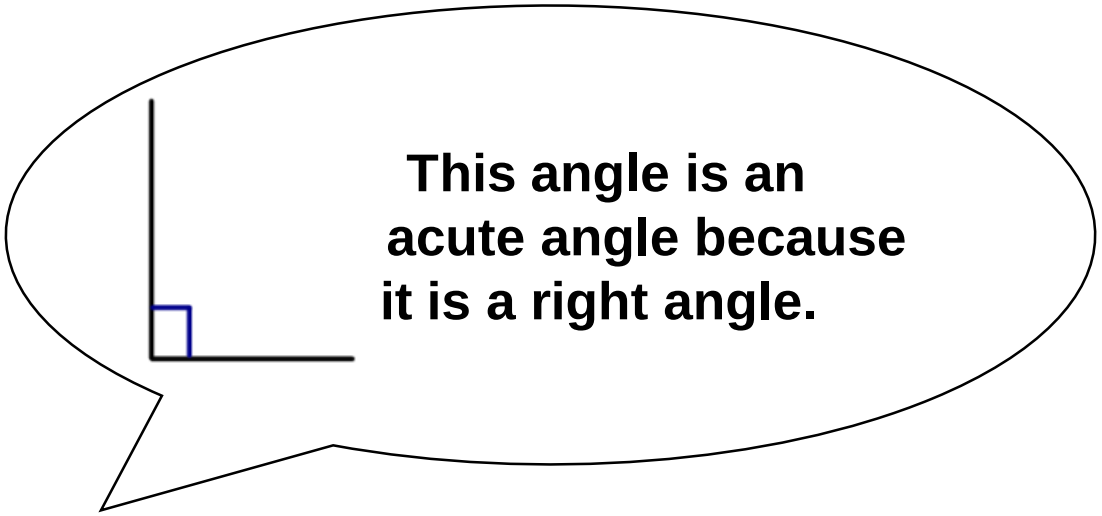



Is Mark correct? Explain your answer.

# To be able to identify acute, obtuse and right angles

**Activity 4:**

AJ says,




Is Mark correct? Explain your answer.

**Mark is incorrect.**

**A right angle is 90 degrees whereas an acute angle is less than 90 degrees.**

To be able to identify acute, obtuse and right angles

**Success Criteria:**

- ❑ I can explain the properties of acute, obtuse and right angles

**Evaluation:**

## True or False?

1. An acute angle is smaller than an obtuse angle.
2. A right angle is both an acute angle and an obtuse angle.
3. Two right angles have a total of 108 degrees.
4. An angle greater than 45 degrees is called an obtuse angle.
5. To draw an acute angle you have to always use a protractor.
6. Angles are the measure of a turn.
7. When two lines meet at a point an angle is formed.

To be able to identify acute, obtuse and right angles

**Success Criteria:**

- ❑ I can explain the properties of acute, obtuse and right angles

**Evaluation:**

## True or False?

1. An acute angle is smaller than an obtuse angle. **TRUE**
2. A right angle is both an acute angle and an obtuse angle. **FALSE**
3. Two right angles have a total of 108 degrees. **FALSE**
4. An angle greater than 45 degrees is called an obtuse angle. **FALSE**
5. To draw an acute angle you have to always use a protractor. **FALSE**
6. Angles are the measure of a turn. **TRUE**
7. When two lines meet at a point an angle is formed. **TRUE**