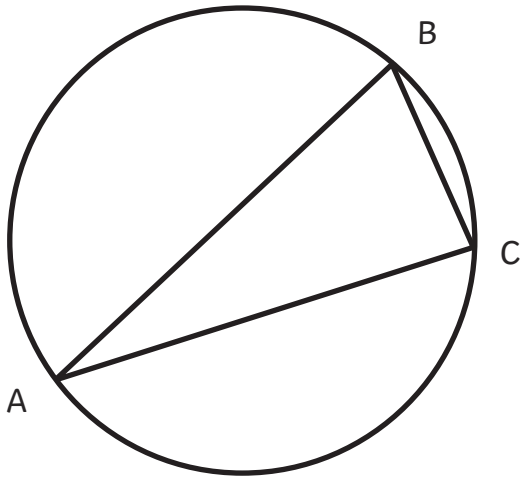
# Circles 1

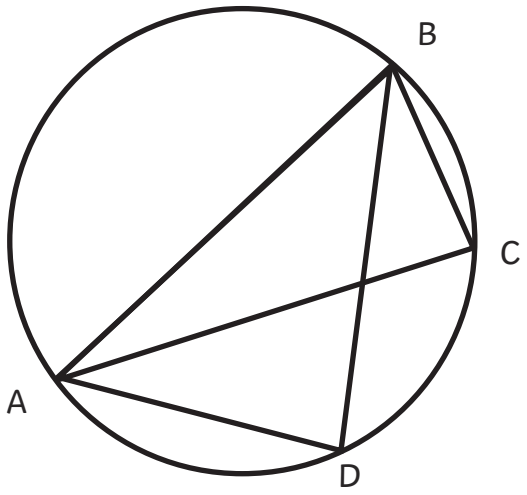
Draw a circle and mark 3 points: A, B and C anywhere on the circumference. Join the points with a ruler to make a triangle.




Measure the angles ∠ABC, ∠BCA and ∠CAB on your circle.

Measure the angles ∠ABC=_____ ∠BCA = _____ ∠CAB = _____

Mark another point on the circumference between points A and C, and call it point D. Draw a ruler line from A to D, and from B to D.




Measure the angles ∠ABD, ∠BDA and ∠DAB on your circle.

Measure the angles ∠ABD=_____ ∠BDA = _____ ∠DAB = _____

What do you notice?

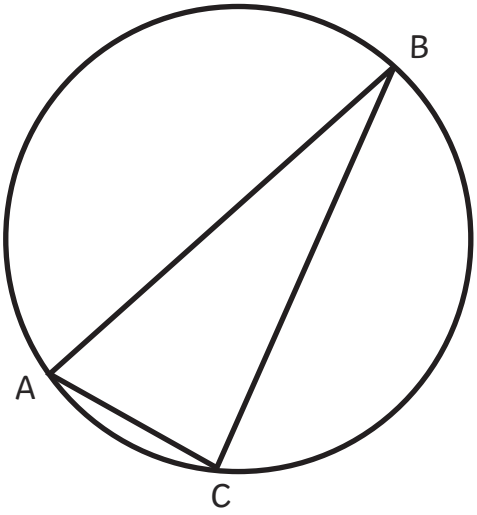
_____

_____

# Circles 2

Draw a circle. Draw a ruler line across the diameter, marking the points where the diameter meets the circumference as A and B.

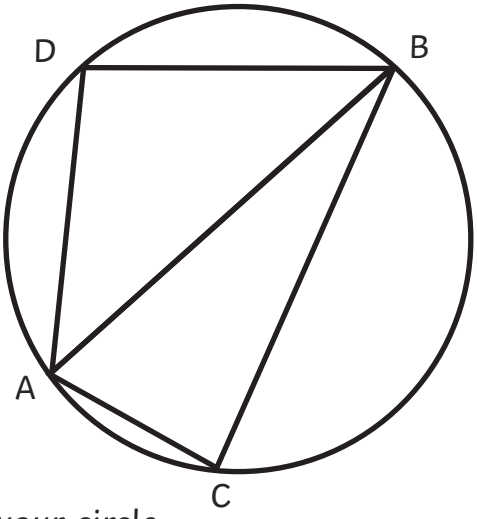
Mark a third point C anywhere on the circumference, and join C to A and C to B using a ruler.




Measure the angle ∠BCA on your circle.

∠BCA=_____

Mark point D anywhere on the opposite side of the circumference from C, and draw lines AD and BD.




Measure the angle ∠BDA on your circle.

∠BDA=_____

What do you notice about ∠BCA and ∠BDA?

_____

_____

Test your ideas with other triangles.

# Answers

**Circles 1**

The angles inside each triangle should add up to 180°.

Angle ∠BCA and ∠BDA should be the same.

**Circles 2**

The angles ∠BCA and ∠BDA are both 90°.

Any triangle with all 3 vertices on the circumference of a circle, where one side is the diameter will be a right-angled triangle.