

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 $\angle ABC$, $\angle BCA$ and $\angle CAB$ on your circle.

Measure the angles $\angle ABC = \underline{\hspace{2cm}}$ $\angle BCA = \underline{\hspace{2cm}}$ $\angle CAB = \underline{\hspace{2cm}}$

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 $\angle ABD$, $\angle BDA$ and $\angle DAB$ on your circle.

Measure the angles $\angle ABD = \underline{\hspace{2cm}}$ $\angle BDA = \underline{\hspace{2cm}}$ $\angle DAB = \underline{\hspace{2cm}}$

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 $\angle BCA$ on your circle.

$\angle BCA =$ _____

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

Measure the angle $\angle BDA$ on your circle.

$\angle BDA =$ _____

What do you notice about $\angle BCA$ and $\angle BDA$?

Answers

Circles 1

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

Angle $\angle BCA$ and $\angle BDA$ should be the same.

Circles 2

The angles $\angle BCA$ and $\angle BDA$ 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.