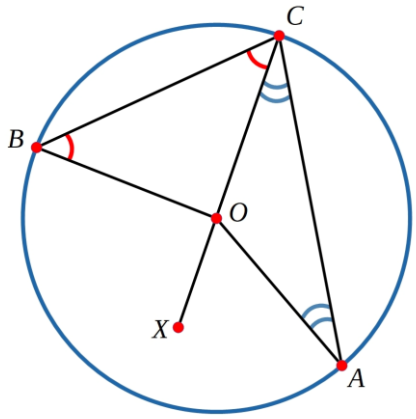
# Circumference Angles




The angle at the centre of the circle is double the angle at the circumference.

Here is a diagram and a proof that has been scrambled up.
Can you rearrange it into its original order?

| | |
|---|---|
| Using angle sum of a triangle we have $\angle BOC = 180° - 2x$ | A |
| $\angle BOA = 2x + 2y = 2(x + y)$ | B |
| Using angle sum on a straight line we have $\angle XOA = 2y$ | C |
| Let $\angle OBC = x$ and let $\angle OCA = y$ | D |
| Using angle sum on a straight line we have $\angle XOB = 2x$ | E |
| Since $\triangle COA$ is isosceles we have $\angle OCA = \angle OAC = y$ | F |
| Therefore $\angle BOA = 2 \times \angle BCA$ | G |
| Since $\triangle BOC$ is isosceles we have $\angle OBC = \angle OCB = x$ | H |
| Using angle sum of a triangle we have $\angle COA = 180° - 2y$ | I |
| $\angle BCA = x + y$ | J |