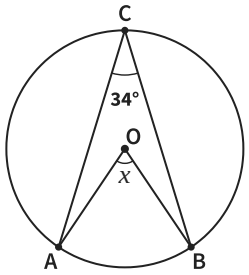
Circle theorems: angle at the centre

1

O is the centre. Find x. Give a reason.



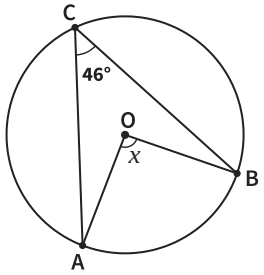
$x = 2 \times 34$

$x =$ _____

Reason: The angle at the centre is twice the angle at the circumference.

2

O is the centre. Find x. Give a reason.



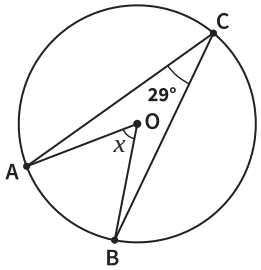
$x = 2 \times$

$x =$ _____

Reason: The angle at the centre is

3

O is the centre. Find x. Give a reason.

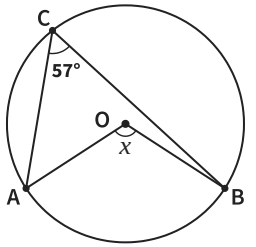


$x =$ _____

Reason: The

4

O is the centre. Find x. Give a reason.

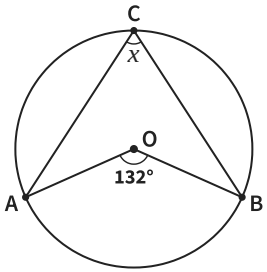


$x =$ _____

Reason:

5 *Notice the change!*

O is the centre. Find x. Give a reason.



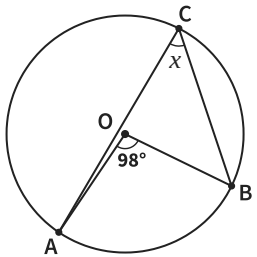
$132 = 2 \times x$

$x =$ _____

Reason: The angle at the centre is

6

O is the centre. Find x. Give a reason.

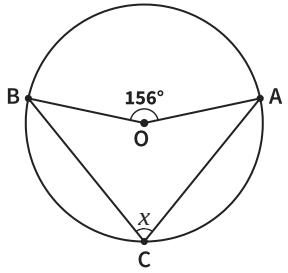


$x =$ _____

Reason: The

7

O is the centre. Find x. Give a reason.

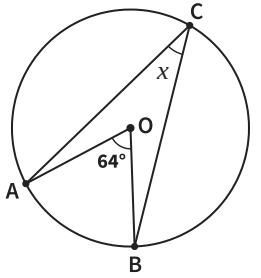


$x =$ _____

Reason:

8

O is the centre. Jo says $x = 2 \times 64 = 128°$. Explain Jo's mistake.

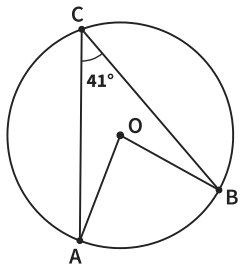


$x =$ _____

Circle theorems: angle at the centre *further practice*

9

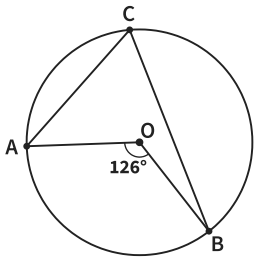
O is the centre. Find angle AOB.



Answer _____

10

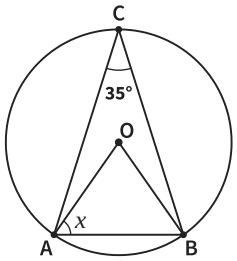
O is the centre. Find angle ACB.



Answer _____

11

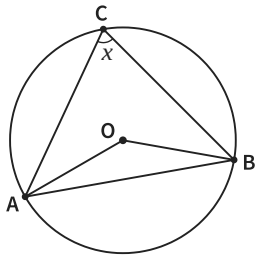
O is the centre. Find x.



Answer _____

12

O is the centre. Angle OAB = 20°. Find x.



Answer _____

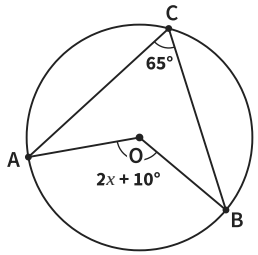
13

A round arena has a judge at its centre. A photographer on the edge of the arena sees two gates, also on the edge, 37° apart. How many degrees apart does the judge see the gates?

Answer _____

14

O is the centre. Find x.



Answer _____

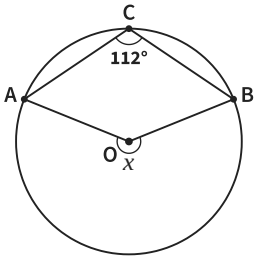
15

The angle at the circumference is a whole number of degrees.
Explain why the angle at the centre on the same arc is always even.

So _____

16

O is the centre. Find the reflex angle x.



Answer _____