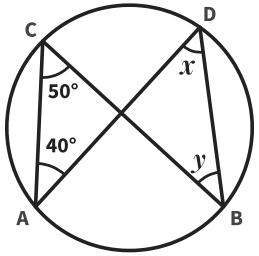
Circle Theorems: Angles in the Same Segment

1 angles in the same segment are equal

Find x and y.

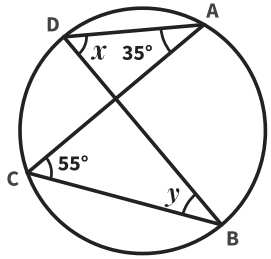


x = 50 ° same segment as angle C

y = ____ ° same segment as angle A

2

Find x and y.

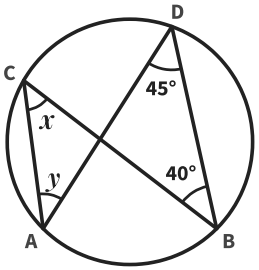


x = ____ ° same segment as angle C

y = ____ ° same segment as angle A

3

Find x and y.

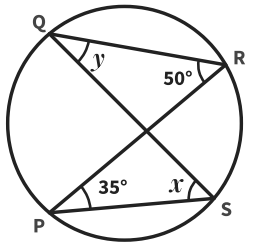


x = ____ ° same segment as angle _____

y = ____ ° same segment as angle _____

4

Find x and y. Give the reason.



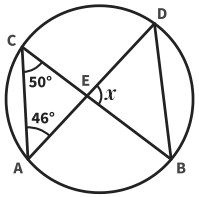
x = ____ °

y = ____ °

Reason: _____

5 *Notice the change!*

Find x.



Angle ADB = ____ ° same segment as angle C

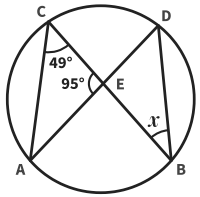
Angle DBC = ____ ° same segment as angle A

_____

x = _____ °

6

Find x. Give a reason for each step.



Angle ADB = ____ ° _____

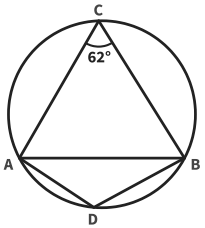
Angle DEB = ____ ° _____

_____

x = _____ °

7

Kofi says angle ADB = 62°, because angles in the same segment are equal.
Explain why Kofi is wrong.

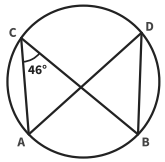


_____

_____

8

Two cameras, C and D, are on the curved wall of a round room. Both film the doorway AB in the wall. Camera C needs a 46° view. What view does camera D need? Give a reason.



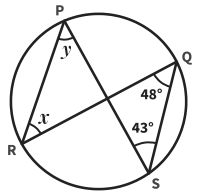
_____

Camera D _____ °

Circle Theorems: Angles in the Same Segment *further practice*

9

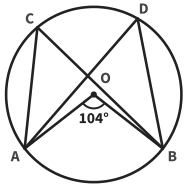
Find x and y. Give a reason for each.



Answer _____

10

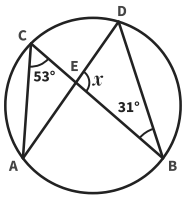
O is the centre of the circle.
Find angle ACB and angle ADB.
Give reasons.



Answer _____

11

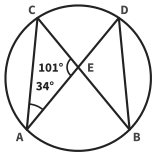
Chords AD and BC cross at E.
Find angle DEB, marked x. Give a reason for each step.



Answer _____

12

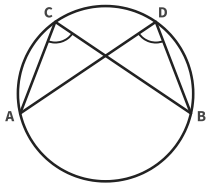
Two straight stripes, AD and BC, cross a round rug from edge to edge and meet at E. Find angle ADB.



Angle ADB _____

13

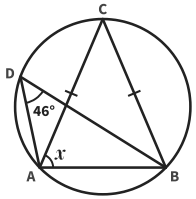
Angle ACB = $(2x + 31)°$ and angle ADB = $(4x - 15)°$. Find x, then the size of angle ACB.



Answer _____

14

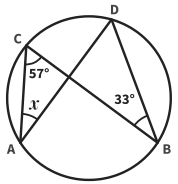
CA = CB. Find angle CAB, marked x.
Give a reason for each step.



Answer _____

15

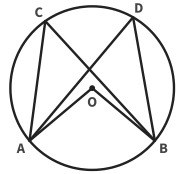
Mei says $x = 57°$ because angles in the same segment are equal.
Explain her mistake, then find x.



Answer _____

16

O is the centre. Use the angle at the centre to explain why angle ACB = angle ADB.



So _____