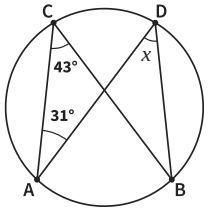
Circle theorems: angles in the same segment

1

Find x. Give a reason.



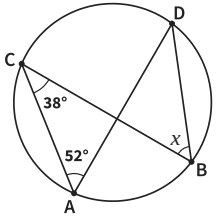
x = **angle ACB**

x = _____

Reason: Angles in the same segment are equal.

2

Find x. Give a reason.



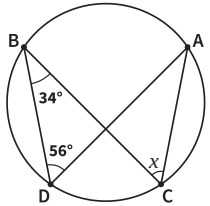
x = **angle**

x = _____

Reason: Angles in the

3

Find x. Give a reason.

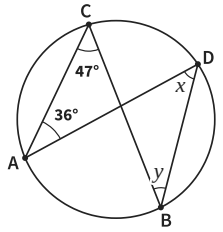


x = _____

Reason: Angles

4

Find x and y. Give a reason.



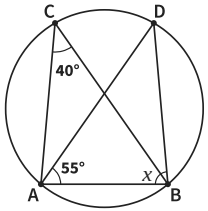
x = _____

y = _____

Reason:

5 *Notice the change!*

Find x. Give a reason.



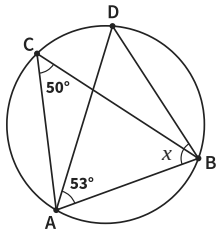
Angle ADB = 40°

x = _____

Reason: Angles in the

6

Find x. Give a reason.

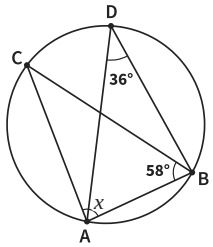


x = _____

Reason: Angles

7

Find x. Give a reason.

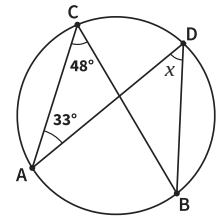


x = _____

Reason:

8

Ben says $x = 33°$ because angles in the same segment are equal.
Explain Ben's mistake.

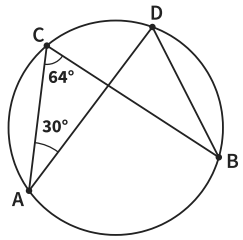


x = _____

Circle theorems: angles in the same segment *further practice*

9

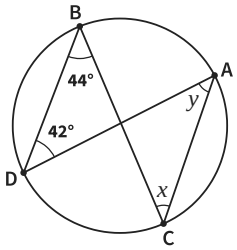
Find angle ADB.



Answer _____

10

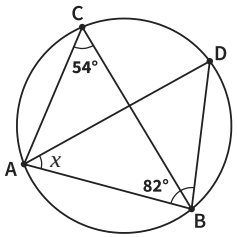
Find x and y.



Answer _____

11

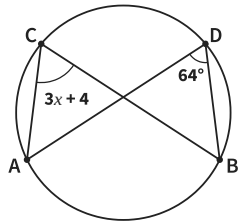
Find x.



Answer _____

12

Find x.



Answer _____

13

C and D are on a circle, on the same side of the chord AB.

Angle ACB = $2x + 30°$ and angle ADB = $4x - 10°$. Find the size of angle ACB.

Answer _____

14

Four lights A, B, C and D are on a circular ring. C and D are on the same arc AB. From C, lights A and B are 41° apart. How far apart are A and B from D?

Answer _____

15

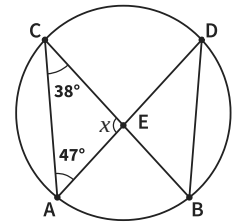
C and D are on a circle, on opposite sides of the chord AB. Mia says angle ACB = angle ADB. Is she right? Explain.

So _____

16

The chords AD and BC cross at E.

Find x.



Answer _____