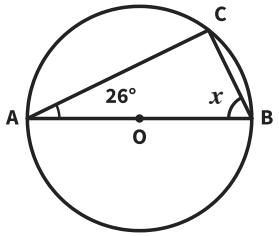
# Circle Theorems: Angle in a Semicircle

**1** angle in a semicircle = 90°

AB is a diameter. Find $x$.




**Angle ACB =** 90 °

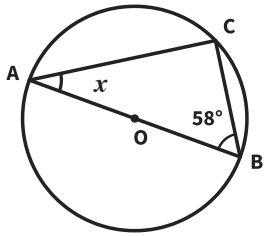
angle in a semicircle

$x = 180 -$ ☐ $-$ ☐

$x =$ _____ °

**2**

AB is a diameter. Find $x$.




**Angle ACB =** ☐ °

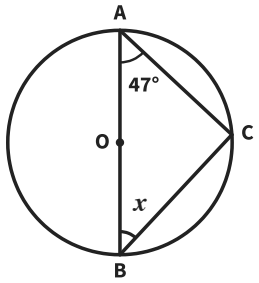
angle in a semicircle

$x = 180 -$ ☐ $-$ ☐

$x =$ _____ °

**3**

AB is a diameter. Find $x$.
Give your reasons.



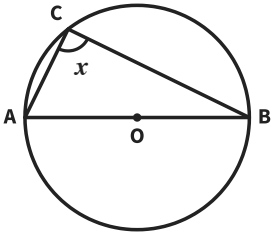

_____

_____

$x =$ _____ °

**4** *Notice the change!*

AB is a diameter. Find $x$. Give a reason.



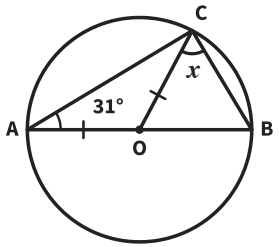

_____

_____

$x =$ _____ °

**5**

O is the centre and AB is a diameter.
Find $x$.



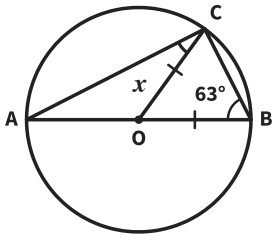

**OA = OC, so angle OCA =** ☐ °

$x = 90 -$ ☐

$x =$ _____ °

**6**

O is the centre and AB is a diameter.
Find $x$. Give your reasons.



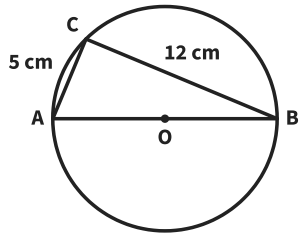

_____

_____

$x =$ _____ °

**7**

AB is a diameter. Find the length of AB.



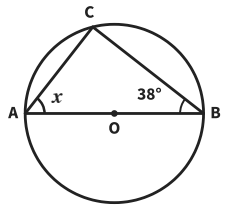

_____

_____

**AB =** _____ **cm**

**8**

AB is a diameter. Ava says $x = 90°$ because AB is a diameter. Explain why she is wrong, then find $x$.




_____

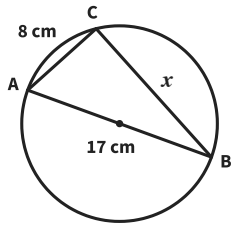
_____

$x =$ _____ °

# Circle Theorems: Angle in a Semicircle *further practice*

**9**

AB is a diameter of length 17 cm. Find $x$.




$x$ = _____

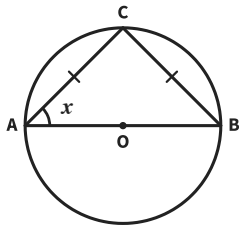
**10**

A, B and C are points on a circle.
Angle ACB = 87°. Is AB a diameter of the circle? Explain how you know.

Answer _____

**11**

AB is a diameter and CA = CB. Find $x$.
Give your reasons.




$x$ = _____

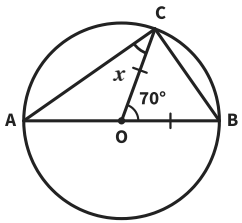
**12**

A round pond has a straight path AB across it, through its centre. A post C is on the edge of the pond. AC = 20 m and BC = 21 m. Find the radius of the pond.

Radius = _____

**13**

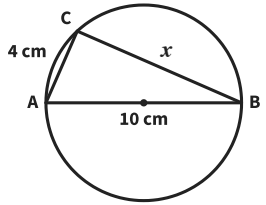
O is the centre and AB is a diameter.
Angle BOC = 70°. Find $x$.
Give your reasons.




$x$ = _____

**14**

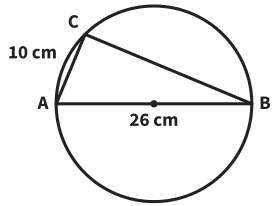
AB is a diameter of length 10 cm.
Find $x$ to 1 decimal place.




$x$ = _____

**15**

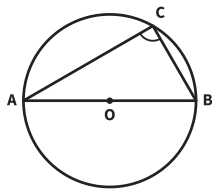
AB is a diameter of length 26 cm.
Find the area of triangle ABC.




Area = _____

**16**

AB is a diameter and O is the centre.
Use the angle at the centre to explain why angle ACB is always 90°.




So _____