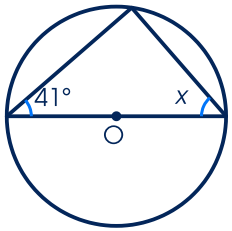
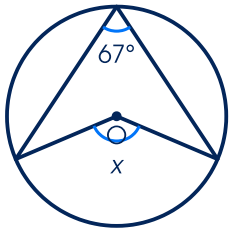
GCSE HIGHER · REVISION MAT 4

Circle theorems

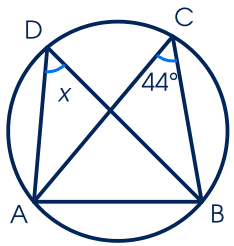
1 AB is a diameter. Find *x*.



2 O is the centre. Find *x*.

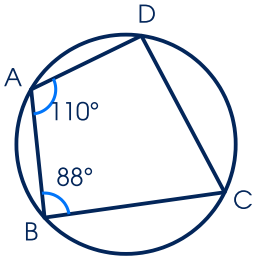


3 Find *x*. Give reasons for your answer.

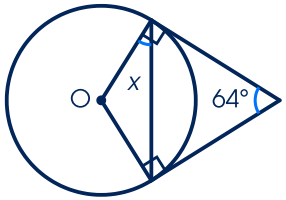


4 ABCD is a cyclic quadrilateral.

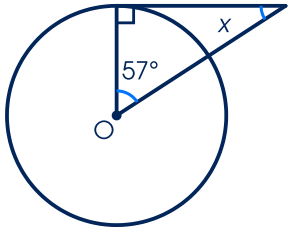
Find angles C and D.



5 PA and PB are tangents. Find *x*.

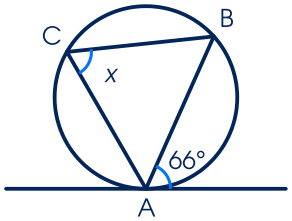


6 PT is a tangent at T. Find *x*.



7 The line is a tangent at A. Find *x*.

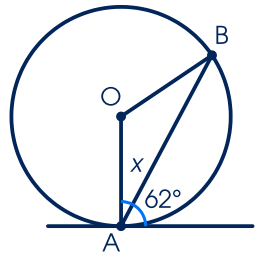
Give reasons for your answer.



8 AT is a tangent at A to a circle, centre O.

Angle TAB = 62°, where AB is a chord.

Find angle OAB.



Mr&Mrs MATHS

ANSWERS · REVISION MAT 4

Circle theorems

1 $x = 49°$

2 $x = 134°$

3 $x = 44°$
(angles in the same segment)

4 C = 70°, D = 92°

5 Angle AOB = 116°
$x = 32°$

6 $x = 33°$

7 $x = 66°$
(alternate segment theorem)

8 Angle in alternate segment
62°, so angle AOB = 124°
OAB = (180 – 124) ÷ 2 = 28°

Mr&Mrs MATHS