

## Circle Theorems

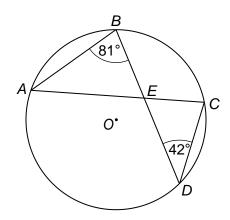




CHECK YOUR ANSWERS



1 A, B, C and D are points on a circle, centre O.



Write down the size of angle CAB. 1 (a)

[1 mark]

degrees Answer \_

**1 (b)** Write down the size of angle *ACD*.

[1 mark]

Answer \_ degrees

Write down the size of angle AEB. 1 (c)

[1 mark]

Answer \_\_\_\_ degrees

1 (d) Write down the size of angle BEC. [1 mark]

Answer degrees

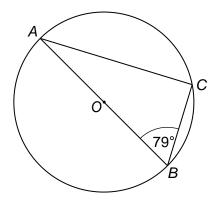








**2** A, B, and C are points on a circle, centre O.



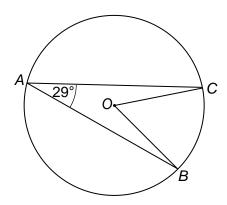
Work out the size of angle *CAB*. Give a reason for your answer.

[2 marks]

degrees

Reason

**3** A, B, and C are points on a circle, centre O.



Work out the size of angle *COB*. Give a reason for your answer.

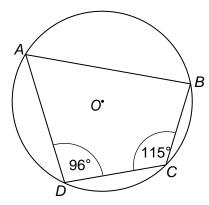
[2 marks]

Answer	degrees

Reason



4 A, B, C and D are points on a circle, centre O.



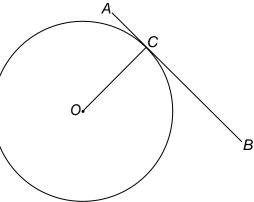
Work out the size of angle *ABC*. Give a reason for your answer.

[2 marks]

Answer	degrees
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Reason

5 A, B, and C are points on a circle, centre O. AB is a tangent.



Work out the size of angle *OCB*. Give a reason for your answer.

[2 marks]

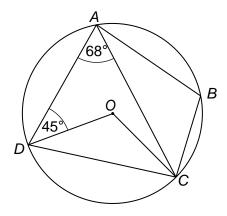
Answer \_\_\_\_\_\_ degrees

Reason





6 A, B, C and D are points on a circle, centre O.



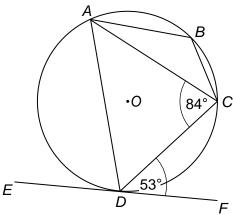
Work out the size of angle <i>ABC</i> . Give reasons for your answer.	[4 marks]
•	[+ marks]

Answer degrees





7 A, B, C and D are points on a circle, centre O. EF is a tangent.



Work out the size of angle ABC.
Give reasons for your answer.

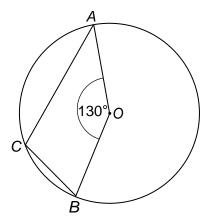
[4 marks]

Answer degrees





8 A, B, and C are points on a circle, centre O.



Work out the size of angle ACB
Give reasons for your answer.

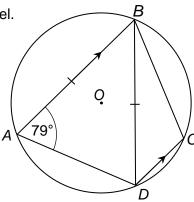
[3 marks]

Answer degrees



9 A, B, C and D are points on a circle, centre O. BA = BD

AB and DC are parallel.



Work out the size of angle <i>DBC</i> . Give reasons for your answer.	[5 marks
	<b>L</b> C 233 <b>2</b> 135.

Answer\_\_\_\_\_\_degrees

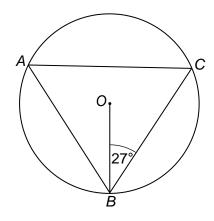
8







A, B, and C are points on a circle, centre O.



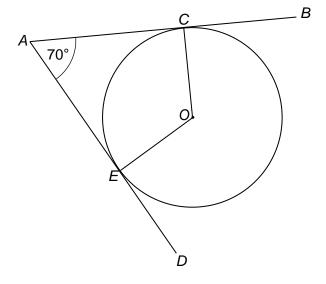
Work out the size of angle <i>BAC</i> . Give reasons for your answer.	[4 marks



degrees

Answer

C and E are points on a circle, centre O. AB and AD are tangents.



11 (a)	Work out the size of angle COE.	

Answer\_\_\_\_\_\_degrees

11 (b) OC = 5 cm
Work out the length of CA to 1 decimal place. [2 marks]

Answer \_\_\_\_\_ cm

t

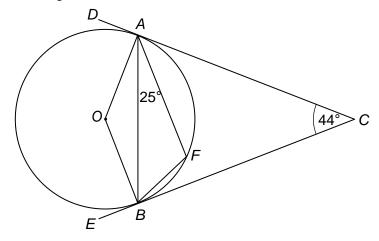
Solutions

Turn over ▶

[2 marks]



A and B are points on a circle, centre O. DC and EC are tangents.



work out the size of angle FBC.	[4 marks]



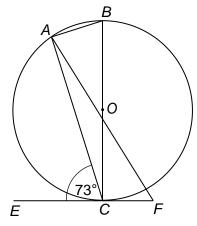
degrees

Answer



A, B, and C are points on a circle, centre O. 13 EF is a tangent.

Angle  $FAB = 5 \times Angle CAF$ .



Work out the size of angle AFC.	[4 marks]



Turn over ▶

degrees

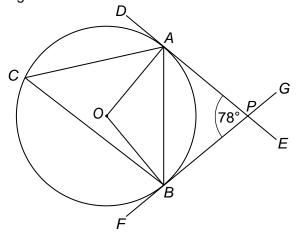


Answer



A, B, and C are points on a circle, centre O. DE and FG are tangents.

Answer



14 (a)	Work out the size of angle ACB.	[2 marks]

14 (b)	Work out the size of angle ABP.	[2 marks]

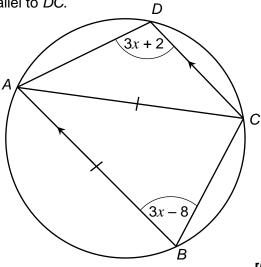
Answer \_\_\_\_\_ degrees



degrees

A, B, C and D are points on a circle, centre O. ABCD is a trapezium with AB parallel to DC.

AB = AC



Work out the size of angle DAC.

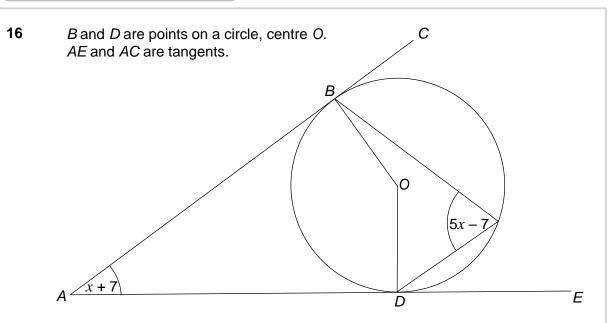
[5 marks]

Answer degrees

9







Work out the value of <i>x</i>	[3 marks]
	Work out the value of x

Answer degrees

16 (b)	AD = 30  cm Work out the length of $OD$ to 3 significant figures.	[3 marks]

Answer \_\_\_\_\_ cm

