

## Circle Theorems

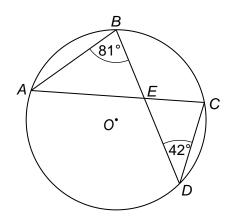




CHECK YOUR ANSWERS



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



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

[1 mark]

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

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

[1 mark]

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

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

[1 mark]

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

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

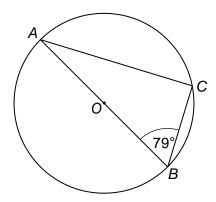
[1 mark]

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





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

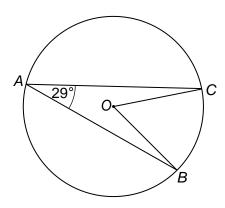


Work out the size of angle *CAB*. Give a reason for your answer.

[2 marks]

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]

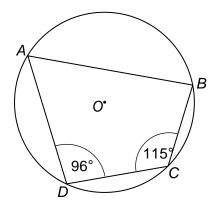
Answer	degree	S

Reason





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

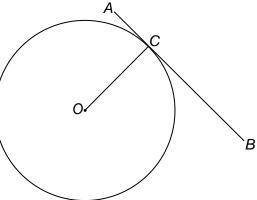


Work out the size of angle *ABC*. Give a reason for your answer.

[2 marks]

Reason

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

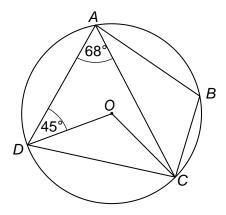


Turn over ▶





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



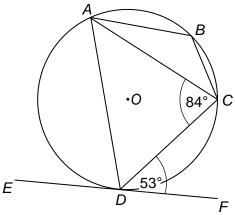
Work out the size of angle <i>ABC</i> . Give reasons for your answer.	[4 marks]

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

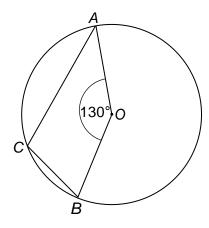


Turn over ▶





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



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

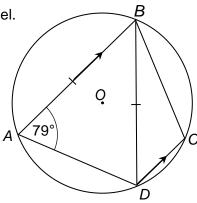
[3 marks]

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]

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

8

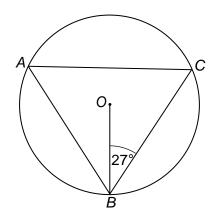
Turn over ▶

Solutions





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



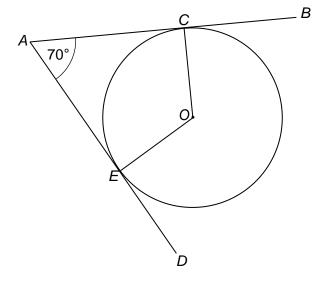
Work out the size of angle <i>BAC</i> . Give reasons for your answer.	[4 marks





degrees

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



11 (a)	Work out the size of angle COE.	[2 marks

Answer	degrees

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

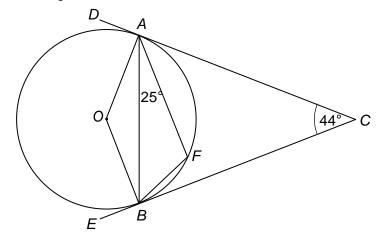
Answer\_\_\_\_\_cm



Solutions



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



work out the size of angle <i>FB</i> C.	[4 marks]

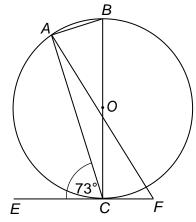


degrees



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

Angle  $FAB = 5 \times Angle CAF$ .



Work out the size of angle <i>AFC</i> .	[4 marks]



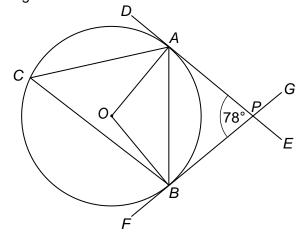
Solutions Programme Solutions

Turn over ▶

degrees



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



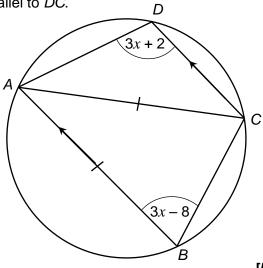
14 (a)	Work out the size of angle ACB.	[2 marks]
	Answer	degrees
14 (b)	Work out the size of angle ABP.	[2 marks]



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

Turn over ▶







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

AE and AC are tangents.

B

C

AE and AC are tangents.

B

C

AE and AC are tangents.

B

C

Is marks]

Answer degrees

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

Answer\_\_\_\_\_cm





