SCAN ME

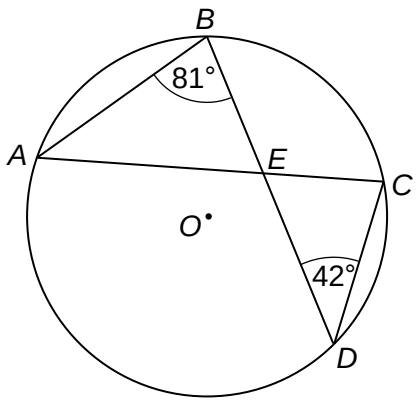
Circle Theorems

REVISE THIS TOPIC

CHECK YOUR ANSWERS

SCAN ME

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]**

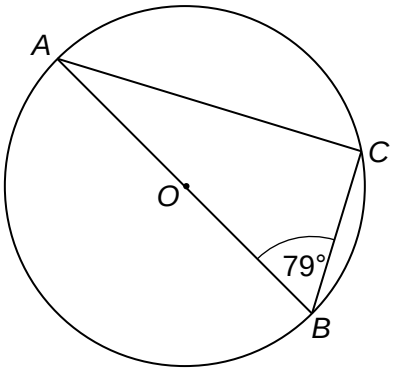
Answer _____ degrees

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

Answer _____ degrees

4

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



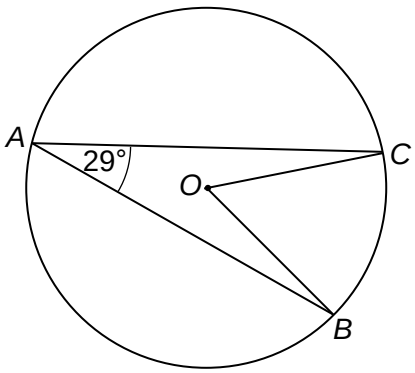
Work out the size of angle *CAB*.
Give a reason for your answer. **[2 marks]**

Answer _____ 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]**

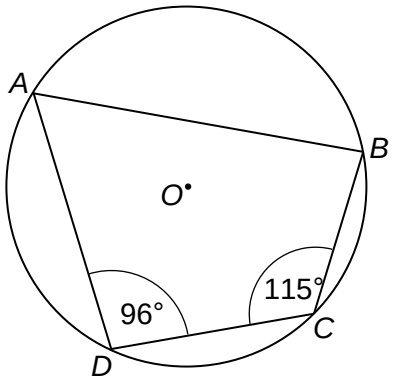
Answer _____ degrees

Reason _____

_____

Solutions

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



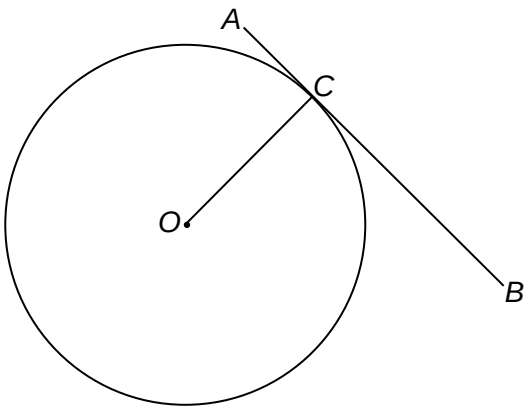
Work out the size of angle *ABC*.
Give a reason for your answer. **[2 marks]**

Answer _____ degrees

Reason _____

_____

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



Work out the size of angle *OCB*. **[2 marks]**
Give a reason for your answer.

Answer _____ degrees

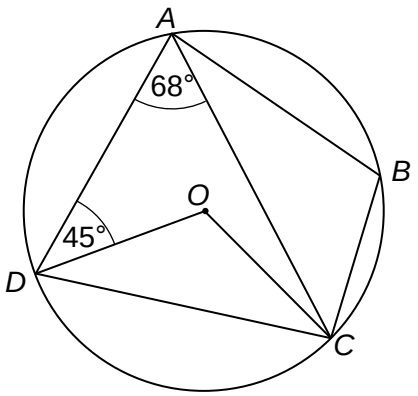
Reason _____

_____

_____

8

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



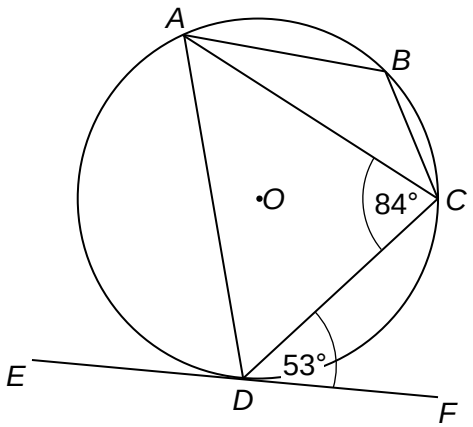
Work out the size of angle *ABC*.
Give reasons for your answer.

[4 marks]

Answer _____ degrees

Solutions

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]

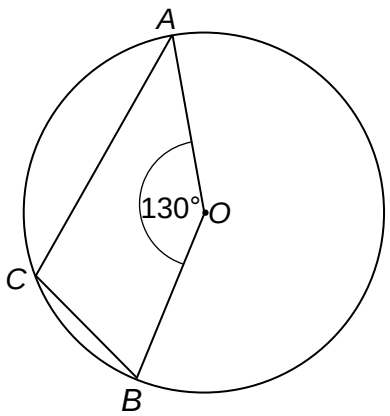
Answer _____ degrees

8

Turn over ►

Solutions

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



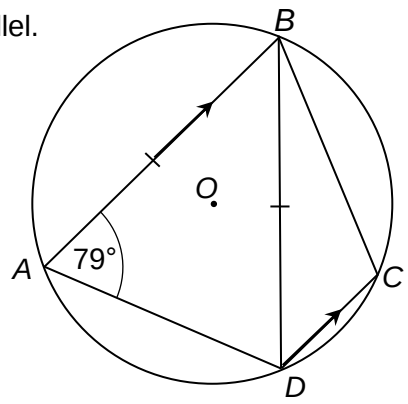
Work out the size of angle *ACB*.
Give reasons for your answer.

[3 marks]

Answer _____ degrees

Solutions

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 *DBC*.
Give reasons for your answer.

[5 marks]

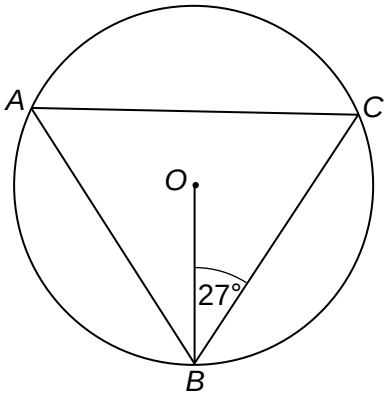
Answer _____ degrees

8

Turn over ►

Solutions

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

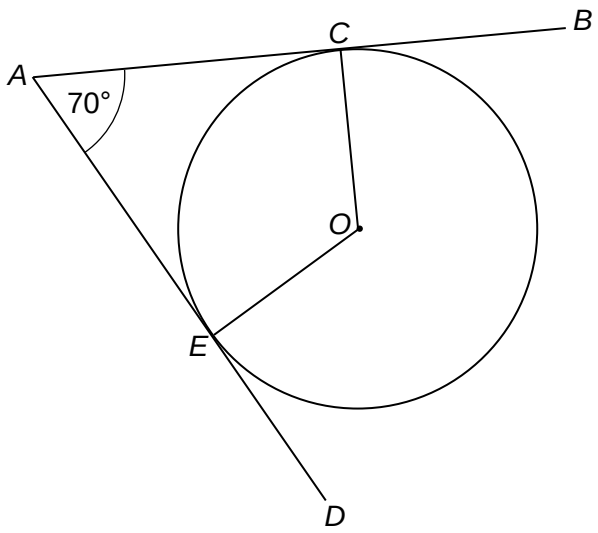


Work out the size of angle *BAC*.
Give reasons for your answer. **[4 marks]**

Answer _____ degrees

Solutions

11 *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]**

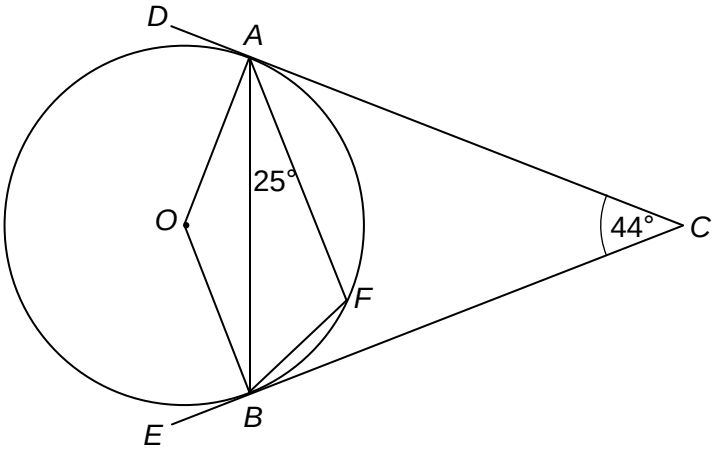
Answer _____ cm

8

Turn over ►

Solutions

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

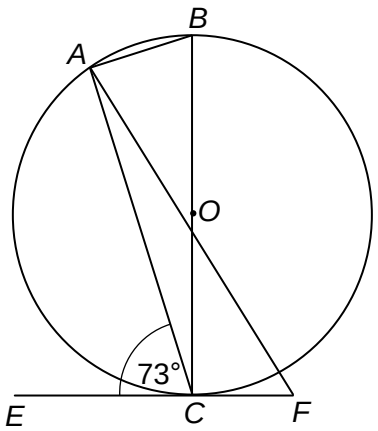


Work out the size of angle *FBC*. **[4 marks]**

Answer _____ degrees

Solutions

13 *A*, *B*, and *C* are points on a circle, centre *O*.
EF is a tangent.
Angle *FAB* = 5 × Angle *CAF*.

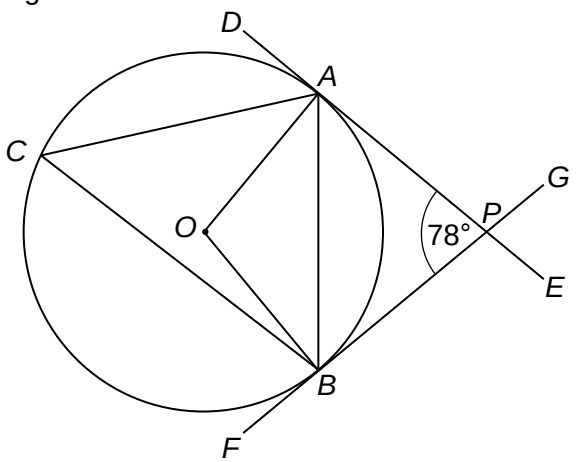


Work out the size of angle *AFC*. **[4 marks]**

Answer _____ degrees

8

14 *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]**

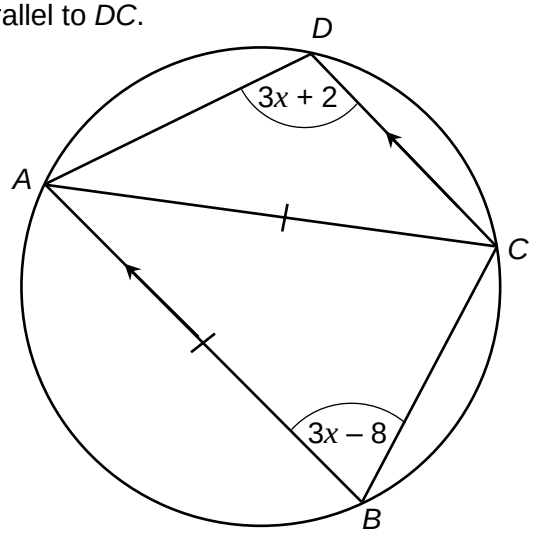
Answer _____ degrees

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

Answer _____ degrees

Solutions

15 *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]**

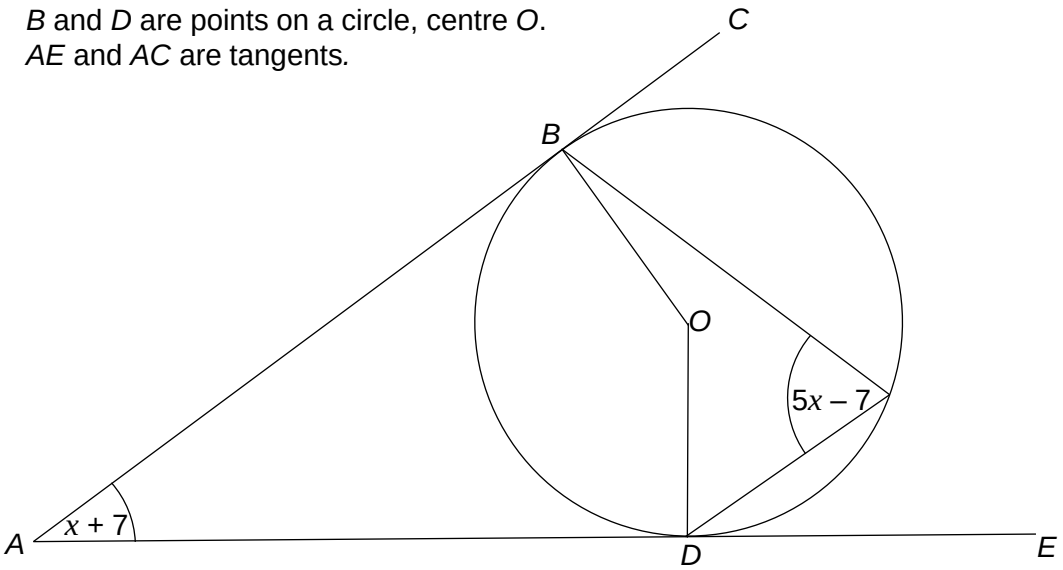
Answer _____ degrees

9

Turn over ►

Solutions

16 *B* and *D* are points on a circle, centre *O*.
AE and *AC* are tangents.



16 (a) Work out the value of x **[3 marks]**

Answer _____ degrees

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

Answer _____ cm

6

Solutions