



Scan for the solutions

Name: _____ **Date:** _____ **Score:** _____ / 44

- 1** A, B, C and D are points on a circle, in that order round the circumference, so ABCD is a cyclic quadrilateral.

Angle DAB = 108° and angle ABC = 75° .

- Work out the size of angle BCD.
- Work out the size of angle CDA.

Give a reason for each answer.

(3 marks)

Answer _____

- 2** A, B, C and D are points on a circle, in that order round the circumference. The chords AC and BD cross at X.

Angle ABD = 34° and angle CAB = 52° .

- Work out the size of angle ACD.
- Work out the size of angle BDC.

Give a reason for each answer.

(3 marks)

Answer _____

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

AOC is a diameter of the circle.

Angle CAB = 37° .

Work out the size of angle ACB. Give a reason for each stage of your working.

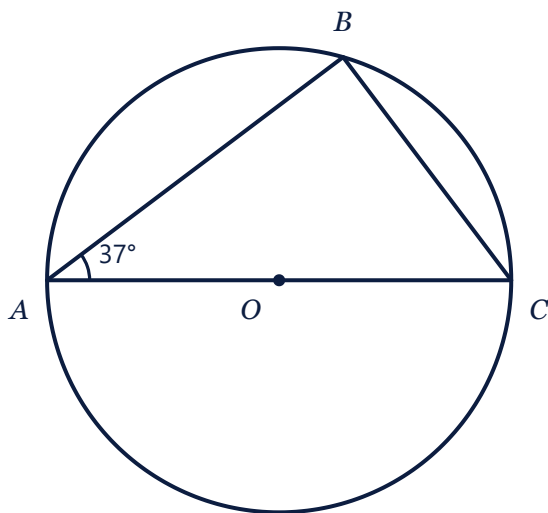


Diagram NOT accurately drawn

(3 marks)

Answer _____

- 4 A, B and C are points on a circle with centre O.
B lies on the major arc AC.
Angle $AOC = 128^\circ$.
Work out the size of angle ABC. Give a reason for your answer.

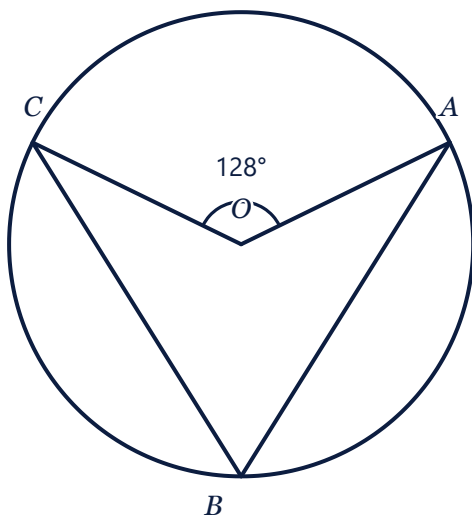


Diagram NOT accurately drawn

(3 marks)

Answer _____

- 5 A, B and C are points on a circle. The line PAQ is the tangent to the circle at A. B and C are on the same side of PQ, with B nearer to P.
Angle $PAB = 64^\circ$ and angle $BAC = 50^\circ$.
a. Work out the size of angle ABC.
b. Work out the size of angle CAQ.
Give a reason for each stage of your working.

(4 marks)

Answer _____

- 6 A and B are points on a circle with centre O.
TA and TB are tangents to the circle from the point T.
Angle $ATB = 48^\circ$.

Work out the size of angle AOB. Give a reason for each stage of your working.

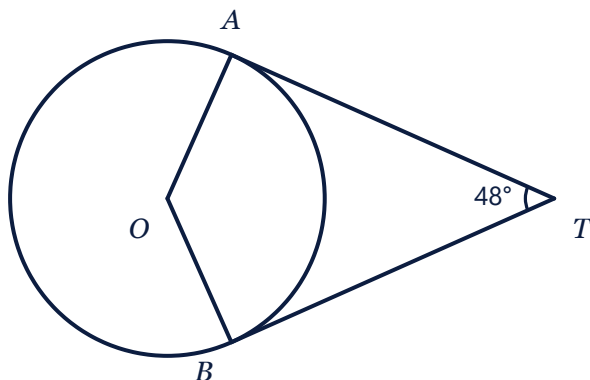


Diagram NOT accurately drawn

(3 marks)

Answer _____

- 7 TP is a tangent to a circle with centre O. P is the point where the tangent touches the circle.
Angle $POT = 58^\circ$.

- Work out the size of angle PTO. Give a reason for each stage of your working.
- Kai says, "Angle $PTO = 122^\circ$ because the angles in a triangle add up to 180° and $180^\circ - 58^\circ = 122^\circ$." Explain what Kai has done wrong.

(4 marks)

Answer _____

8 A, B, C and D are points on a circle, in that order.

Angle $ABD = 29^\circ$ and angle $DBC = 46^\circ$.

Work out the size of

a. angle ACD ,

b. angle ADC .

Give a reason for each stage of your working.

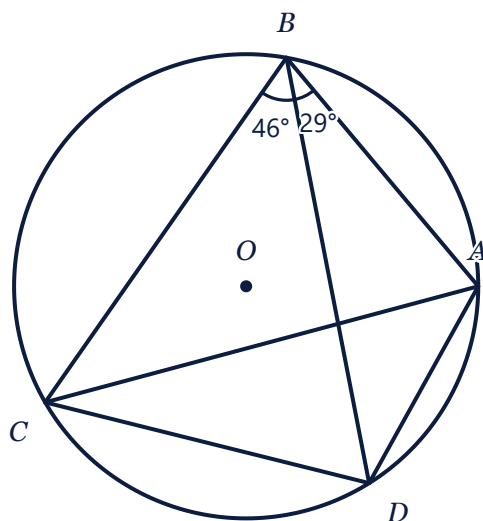


Diagram NOT accurately drawn

(4 marks)

Answer _____

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

C lies on the major arc AB.

Angle $OAB = 28^\circ$.

Work out the size of angle ACB. Give a reason for each stage of your working.

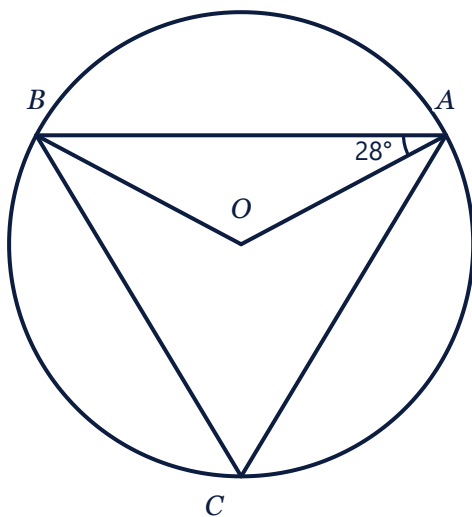


Diagram NOT accurately drawn

(4 marks)

Answer _____

10

A and C are points on a circle with centre O.

PC is a tangent to the circle at C.

Angle PCA = 58° .

Work out the size of angle OAC. Give a reason for each stage of your working.

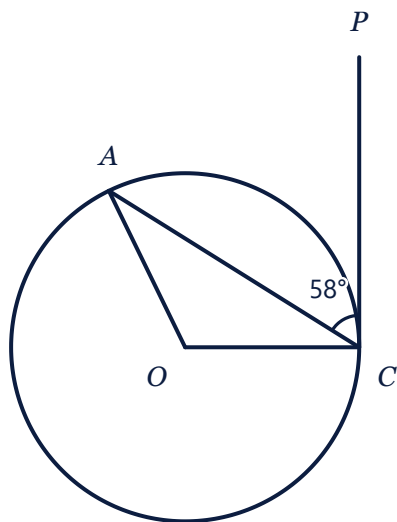


Diagram NOT accurately drawn

(4 marks)

Answer

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

B lies on the minor arc AC.

Angle AOC = 114° .

Work out the size of

a. angle ABC,

b. angle OAC.

Give a reason for each stage of your working.

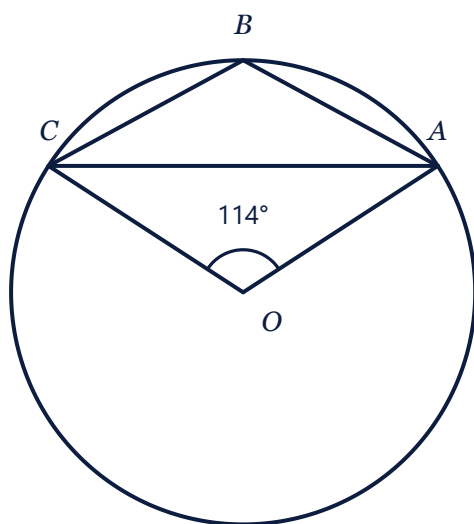


Diagram NOT accurately drawn

(4 marks)

Answer _____

12

AB is a diameter of a circle with centre O. C is a point on the circle. The tangent to the circle at C meets AB extended beyond B at the point T.

Angle CAB = 25° .

- a. Work out the size of angle COB.
- b. Work out the size of angle CTO.

Give a reason for each stage of your working.

(5 marks)

Answer

End of questions | Total 44 marks