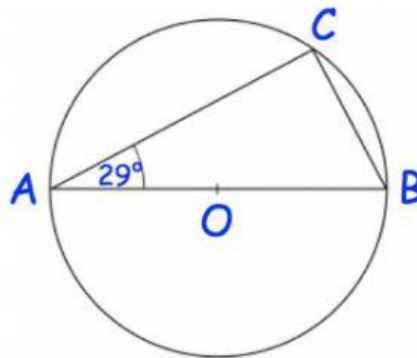


CIRCLE THEOREMS

Answer the question. Show your working.

1. (a) In the diagram below, O is the centre of the circle and A, B and C are points on the circumference.

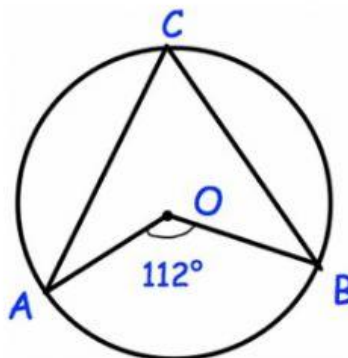


Angle A = 29°

Work out the size of angle B.

.....^o
(1)

- (b) A, B and C are three points on the circumference of another circle.
O is the centre of the circle.

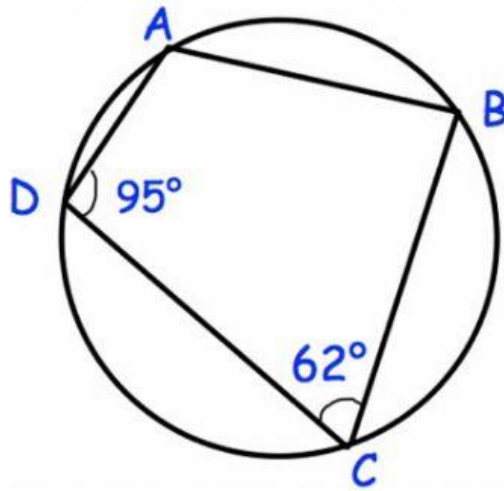


Angle AOB = 112°

Work out the size of angle ACB.

.....^o
(1)

2. A, B, C and D are points on the circumference on a circle.



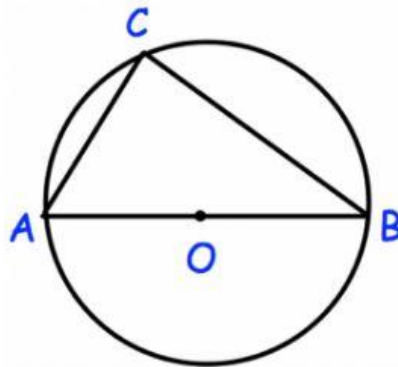
- (a) Find the size of angle DAB.

.....°
(1)

- (b) Find the size of angle ABC.

.....°
(1)

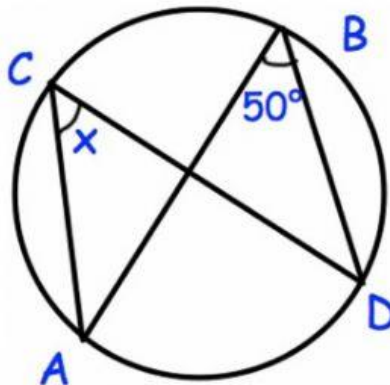
3. A circle with centre O, has points A, B and C on the circumference.
Angle ABC = 20°



Find the size of angle BAC.

.....^o
(1)

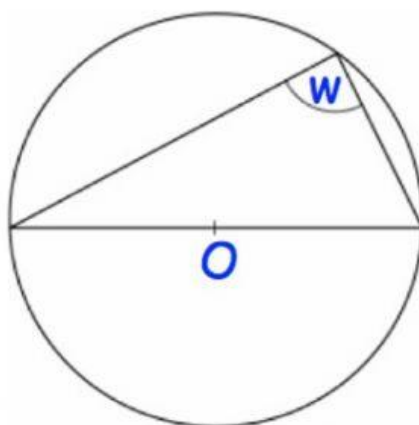
4. A, B, C and D are points on the circumference of a circle.



Find x, the size of angle ACD.

.....^o
(1)

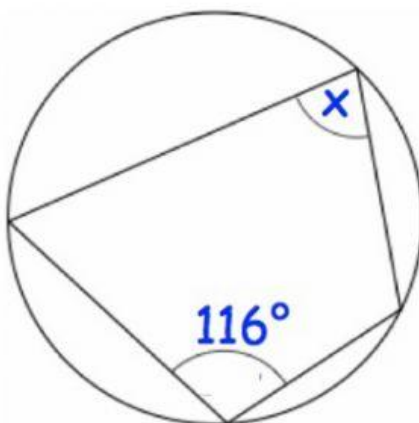
5. (a) In the diagram, O is the centre of the circle.



Write down the value of w .

.....^o
(1)

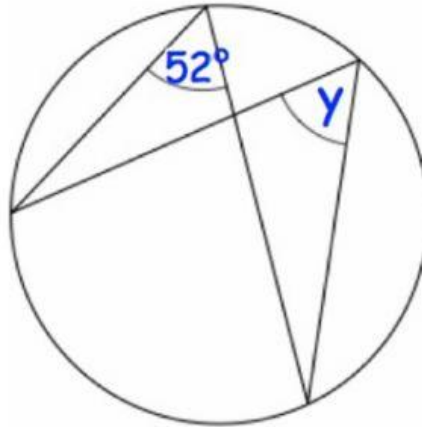
- (b)



Write down the value of x .

.....^o
(1)

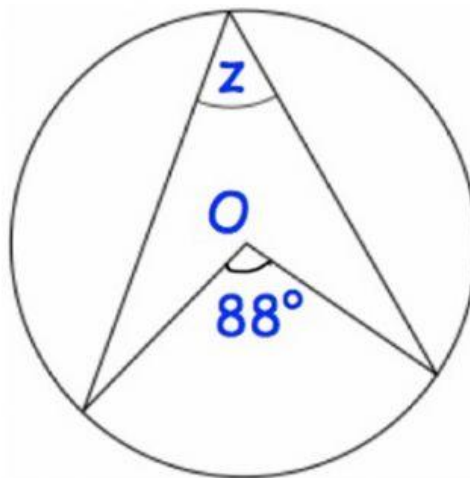
(c)



Write down the value of y .

.....^o
(1)

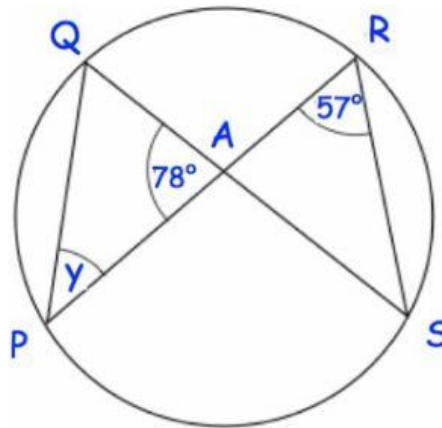
(d) In the diagram, O is the centre of the circle.



Write down the value of z .

.....^o
(1)

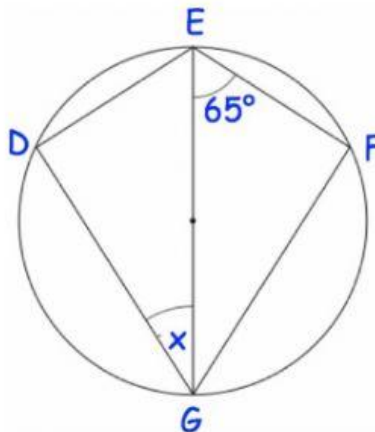
6. P, Q, R and S are four points on the circumference of a circle.
PR meets QS at A.
Angle PRS = 57° and Angle PAQ = 78°



Work out the value of angle y.
Include your method.

.....^o
(3)

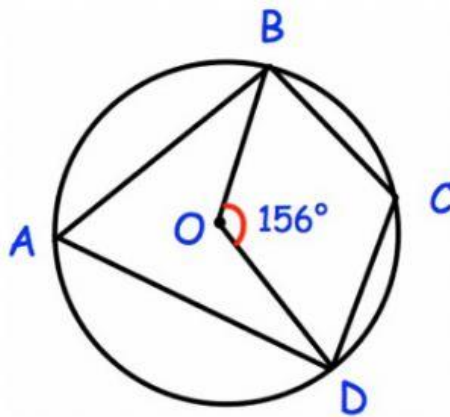
7. The diagram shows points D, E, F and G on the circumference of a circle.
EG is a diameter.
DEFG is a kite.



Work out the value of x.

.....^o
(2)

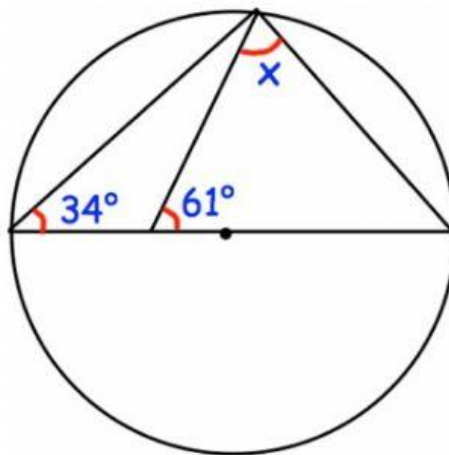
8. A, B, C and D are points on the circumference of a circle with centre O.



Work out the size of angle BCD.
You must show your workings.

.....°
(4)

9. AB is the diameter of a circle.

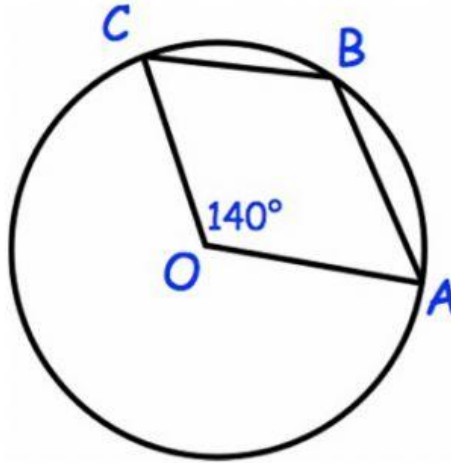


Work out the value of x.

.....°
(3)

10. The diagram shows a circle, centre O.
A, B and C are points on the circumference of the circle.

Angle AOC is 140°



Explain why angle ABC is 110°

.....

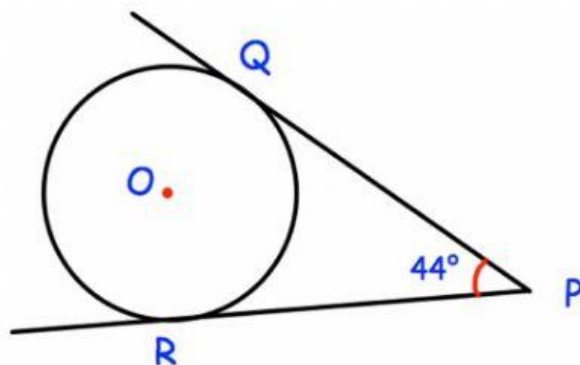
.....

.....

.....

(2)

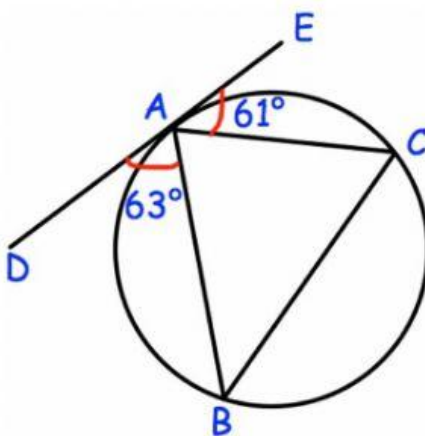
11. Q and R are points on a circle, centre O.
PQ and PR are tangents to the circle.



Work out the size of angle POR.

.....°
(3)

12.12.



DAE is a tangent to a circle.
Write down the size of angle ABC.

.....°
(1)