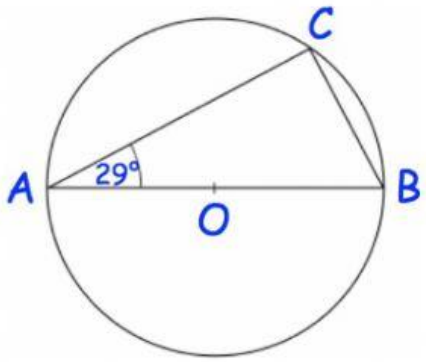
CIRCLE THEOREMS

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.



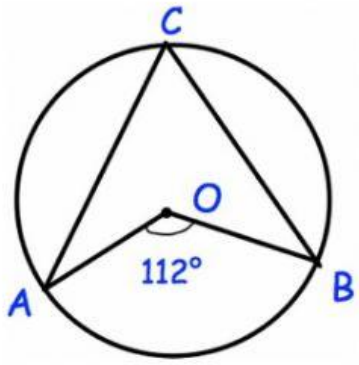
Angle A = 29°

Work out the size of angle B.

.....°

(1)

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



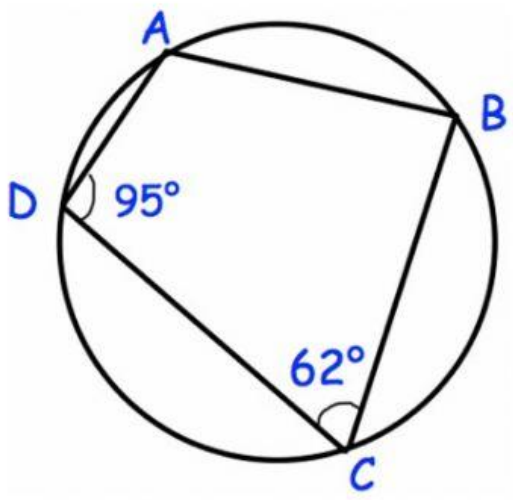
Angle AOB = 112°

Work out the size of angle ACB. .....°

(1)

LIVEWORKSHEETS

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



(a) Find the size of angle DAB.

.....°

(1)

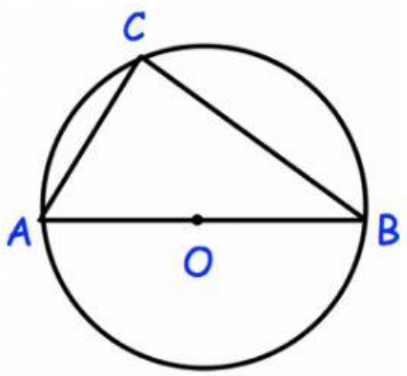
(b) Find the size of angle ABC.

.....°

(1)

LIVEWORKSHEETS

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



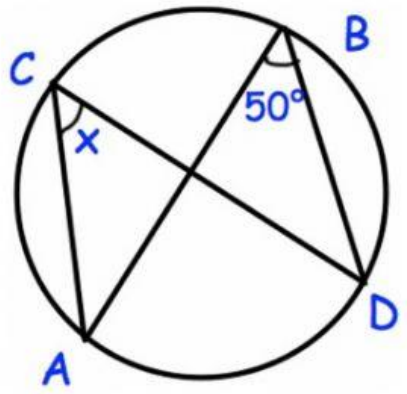
Find the size of angle BAC.

.....°

(1)

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



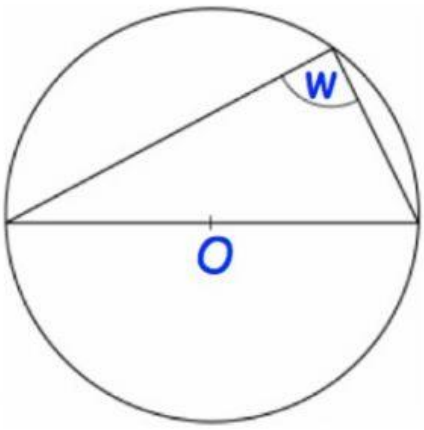
Find x, the size of angle ACD.

.....°

(1)

LIVEWORKSHEETS

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

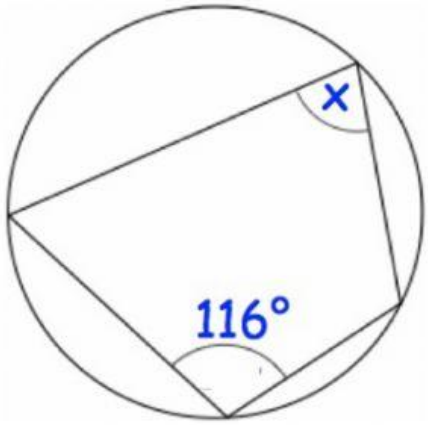


Write down the value of w.

.....°

(1)

(b)



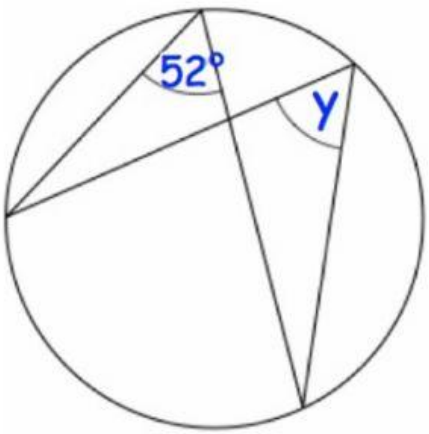
Write down the value of x.

.....°

(1)

LIVEWORKSHEETS

(c)

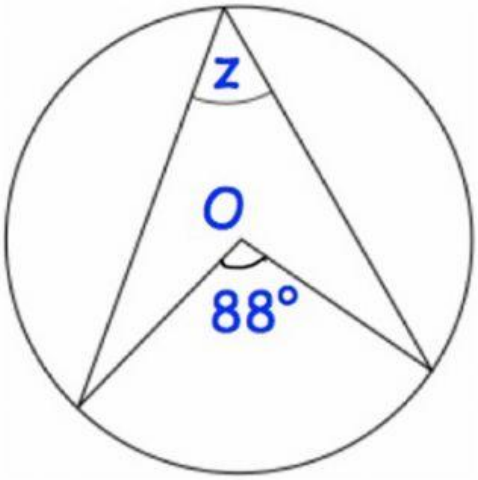


Write down the value of y.

.....°

(1)

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



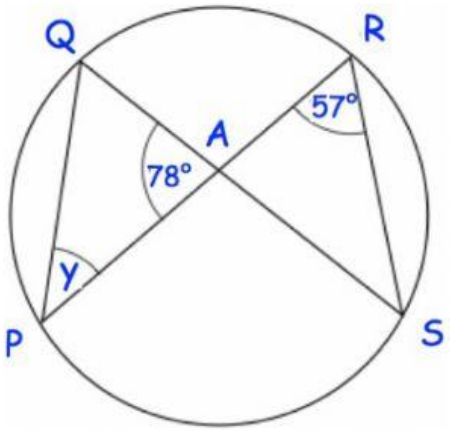
Write down the value of z.

.....°

(1)

LIVEWORKSHEETS

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°



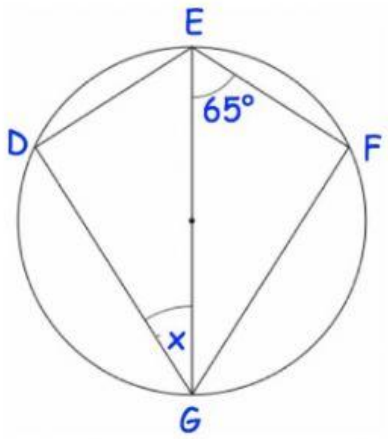
Work out the value of angle y.
Include your method.

.....°

(3)

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



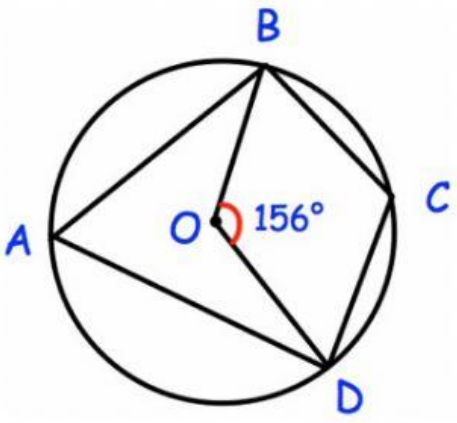
Work out the value of x.

.....°

(2)

LIVEWORKSHEETS

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



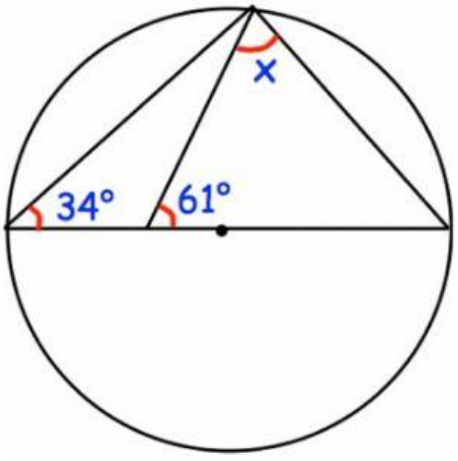
Work out the size of angle BCD.
You must show your workings.

.....°

(4)

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9. AB is the diameter of a circle.



Work out the value of x.

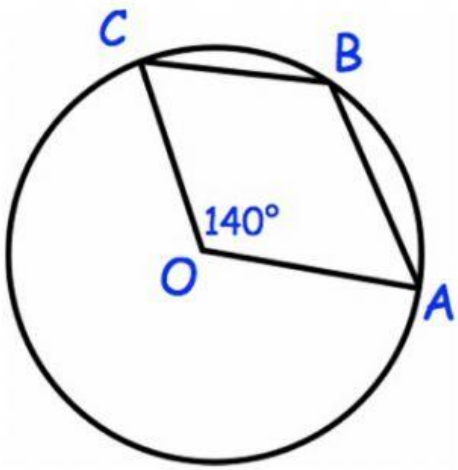
.....°

(3)

LIVEWORKSHEETS

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°

.....

.....

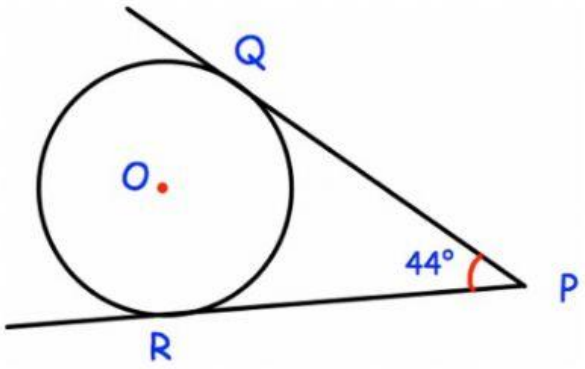
.....

.....

(2)

LIVEWORKSHEETS

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

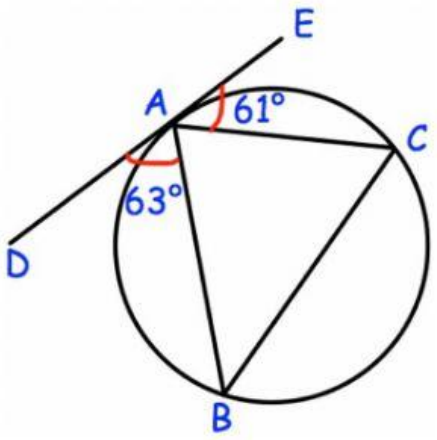


Work out the size of angle POR.

.....°

(3)

12.12.



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

.....°

(1)

LIVEWORKSHEETS