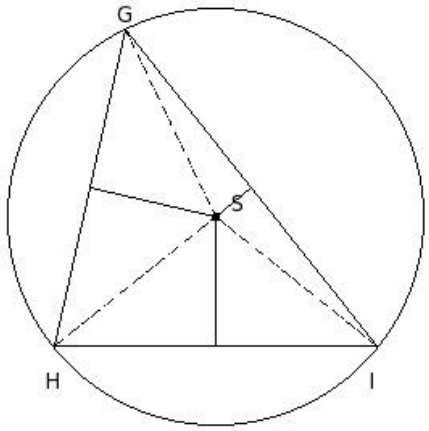
EduSahara™ Assignment

Name : Chord Properties of a Circle

Chapter : Circles

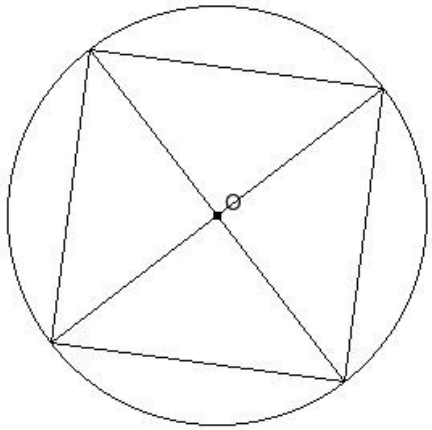
Grade : CBSE Grade IX

1. In the given triangle S is the circumcentre. If SG = 12.90 cm, find the circumference of the circumcircle



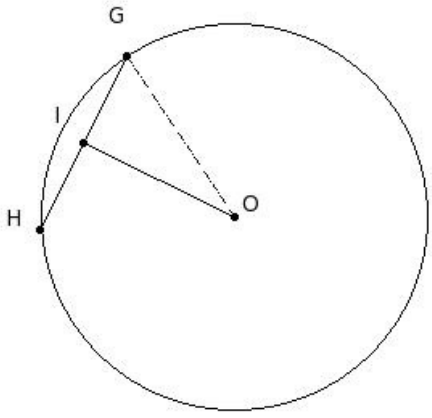
(i) 83.1 cm (ii) 82.1 cm (iii) 79.1 cm (iv) 80.1 cm (v) 81.1 cm

2. Find the side of the square in the following figure if the radius of the circle is 13.00 cm.



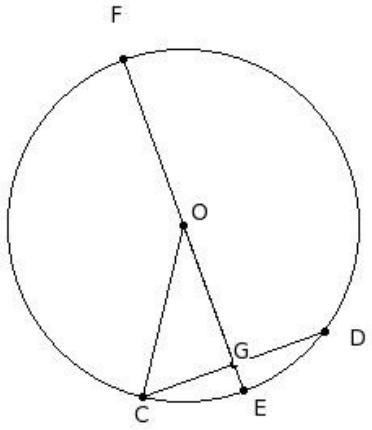
(i) 16.38 cm (ii) 17.38 cm (iii) 19.38 cm (iv) 18.38 cm (v) 20.38 cm

3. If a chord GH = 12 cm is drawn in a circle with radius OG = 12 cm, find its distance from the centre of the circle



(i) 12.39 cm (ii) 11.39 cm (iii) 8.39 cm (iv) 10.39 cm (v) 9.39 cm

4. The diameter EF of a circle with centre 'O' is perpendicular to the chord CD. If CD = 12.00 cm and EG = 1.82 cm, find the radius of the circle.



(i) 8.82 cm (ii) 10.82 cm (iii) 9.82 cm (iv) 12.82 cm (v) 11.82 cm

5. Which of the following statements are true?

a) The radius is the shortest chord.
b) Atmost one chord can be drawn on a circle with a certain length.
c) A chord divides a circle into two segments.
d) A chord divides a circle into two sectors.
e) The diameter is the longest chord.

(i) {a,c} (ii) {c,e} (iii) {d,a,c} (iv) {b,e} (v) {b,e,c}

6. Which of the following statements are true?

a) The longest chord of the circle passes through the centre of the circle.
b) The farther the chord is from the centre, the larger the angle it subtends at the centre.
c) Equal length chords subtend equal angles at the centre of the circle.
d) Equal length chords are equidistant from the centre of the circle.
e) No two chords bisects each other.

(i) {b,a,c} (ii) {e,c} (iii) {b,a} (iv) {b,e,d} (v) {a,c,d}

7. Which of the following statements are true?

a) A sector is the area enclosed by two radii and a chord.
b) The diameter divides the circle into two unequal parts.
c) The area enclosed by a chord and its major arc is called major segment.
d) The area enclosed by a chord and its minor arc is called minor segment.
e) A circle divides the plane on which it lies into three parts.

(i) {a,b,e} (ii) {b,d} (iii) {a,c} (iv) {c,d,e} (v) {a,c,d}

8. Which of the following statements are true?

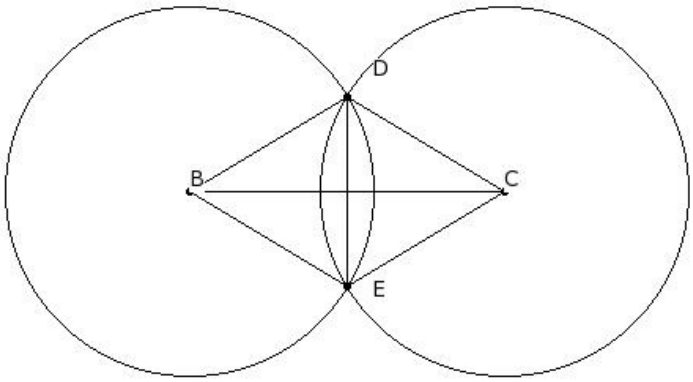
a) The longest of all chords of a circle is called diameter.
b) The diameter divides the circle into two unequal parts.
c) A sector is the area enclosed by two radii and a chord.
d) Two chords bisect each other.
e) The midpoint of any diameter of a circle is its centre.

(i) {a,e} (ii) {d,b,a} (iii) {c,e} (iv) {c,e,a} (v) {b,a}

9. JK , LM , NO , PQ are chords of a circle with JK = 7 cm , LM = 1 cm , NO = 7.4 cm and PQ = 7.02 cm. The chord farthest from the centre of the circle is

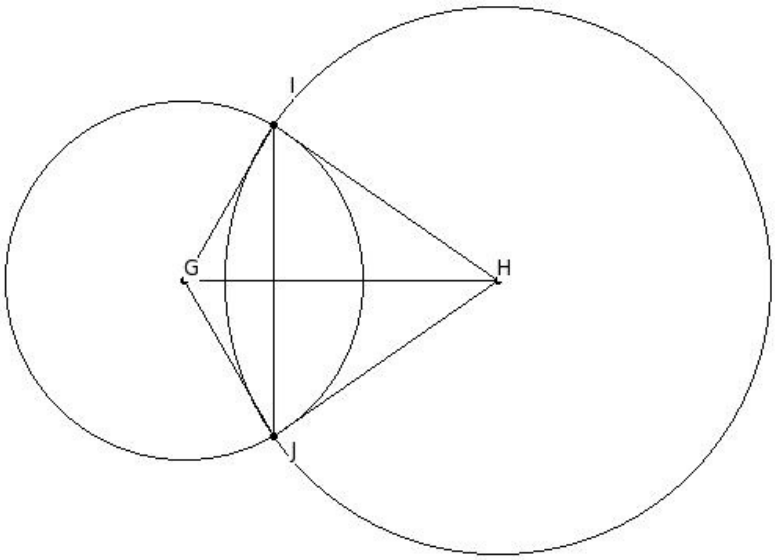
(i) JK = 7 cm (ii) LM = 1 cm (iii) PQ = 7.02 cm (iv) NO = 7.4 cm

10. In the given figure, B and C are centres of two circles with equal radii intersecting at D and E. If BC = 20 cm and DE = 12 cm, find the radii of the circles



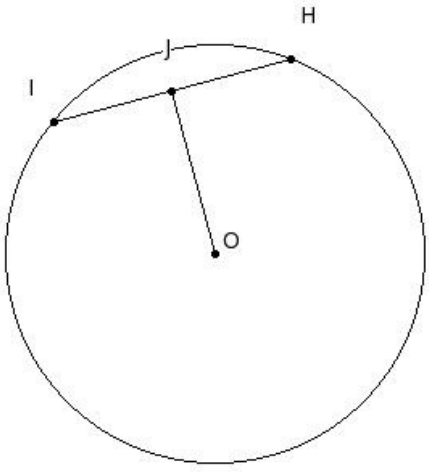
(i) 11.66 cm (ii) 12.66 cm (iii) 13.66 cm (iv) 10.66 cm (v) 9.66 cm

11. In the given figure, two circles of radii GI = 11.4 cm & HI = 17.4 cm intersect at I & J. The distance between the centres GH = 20 cm, find the length of IJ



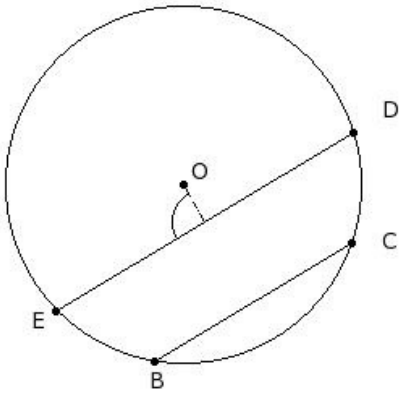
(i) 19.77 cm (ii) 20.77 cm (iii) 18.77 cm (iv) 17.77 cm (v) 21.77 cm

12. In the given figure, O is the centre of the circle. J is a point on chord HI such that HJ = JI. Find ∠OJH



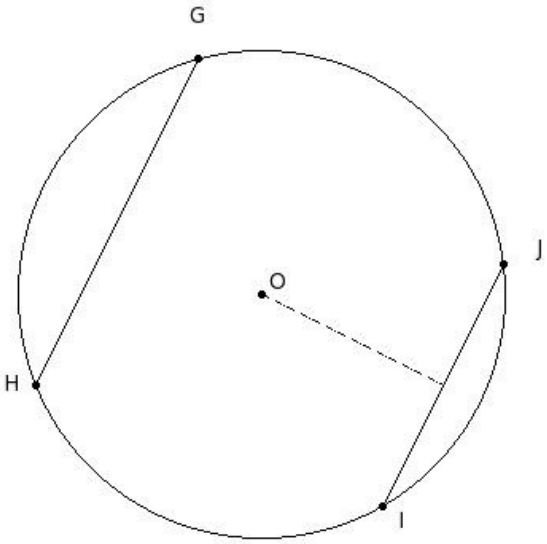
(i) 120° (ii) 95° (iii) 100° (iv) 105° (v) 90°

13. In the given figure, BC ∥ DE. Length of chords BC = 14 cm and DE = 21 cm.
If the distance between the chords is 6 cm, find the radius of the circle



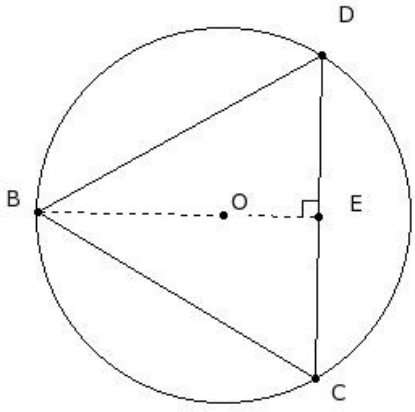
(i) 10.71 cm (ii) 8.71 cm (iii) 12.71 cm (iv) 9.71 cm (v) 11.71 cm

14. In the given figure, GH ∥ IJ. Length of chords GH = 23 cm and IJ = 17 cm.
If the distance between the chords is 23 cm, find the radius of the circle



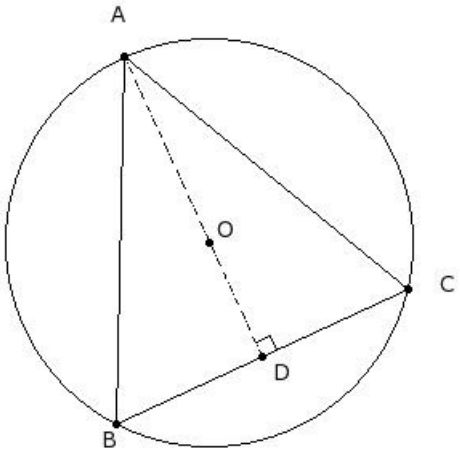
(i) 14.37 cm (ii) 13.37 cm (iii) 16.37 cm (iv) 15.37 cm (v) 17.37 cm

15. In the given figure, △BCD is inscribed in a circle. If BC = BD = 20 cm and CD = 20 cm, find the radius of the circle



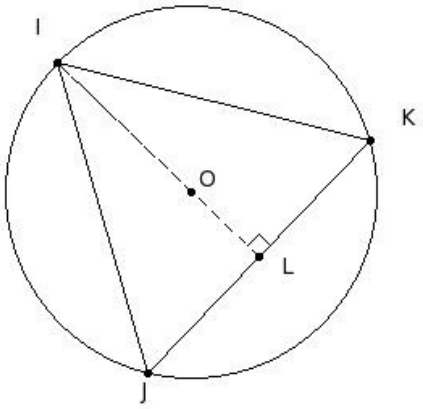
(i) 11.55 cm (ii) 12.55 cm (iii) 10.55 cm (iv) 13.55 cm (v) 9.55 cm

16. In the given figure, △ABC is an isosceles such that AB = AC. Given AO = 13 cm, AB = AC = 23 cm, find BC



(i) 19.45 cm (ii) 23.45 cm (iii) 22.45 cm (iv) 20.45 cm (v) 21.45 cm

17. In the given figure, △IJK is equilateral. Given IO = 12 cm, find JK



(i) 18.78 cm (ii) 20.78 cm (iii) 22.78 cm (iv) 21.78 cm (v) 19.78 cm

18. Two concentric circles are of radii 23 cm and 8 cm. Find the length of the chord of the outer circle that touches the inner circle

(i) 41.13 cm (ii) 44.13 cm (iii) 45.13 cm (iv) 43.13 cm (v) 42.13 cm

Assignment Key

1) (v)	2) (iv)	3) (iv)	4) (ii)	5) (ii)	6) (v)
7) (iv)	8) (i)	9) (ii)	10) (i)	11) (i)	12) (v)
13) (i)	14) (iv)	15) (i)	16) (v)	17) (ii)	18) (iv)