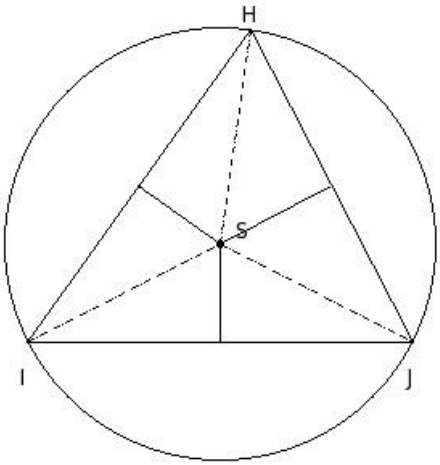
EduSahara™ Assignment

Name : Chord Properties of a Circle

Chapter : Circles

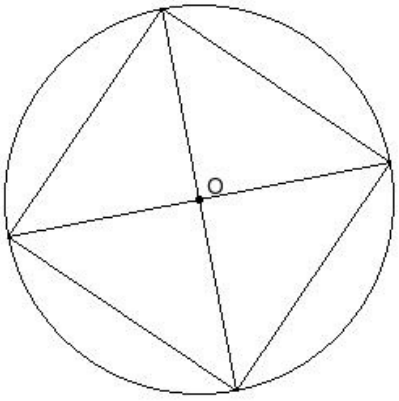
Grade : CBSE Grade IX

1. In the given triangle S is the circumcentre. If SH = 13.40 cm, find the circumference of the circumcircle



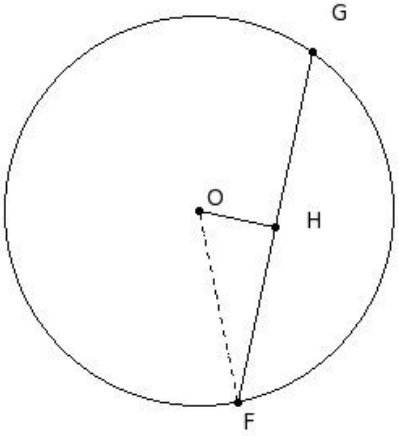
(i) 84.2 cm (ii) 82.2 cm (iii) 85.2 cm (iv) 86.2 cm (v) 83.2 cm

2. Find the side of the square in the following figure if the radius of the circle is 12.00 cm.



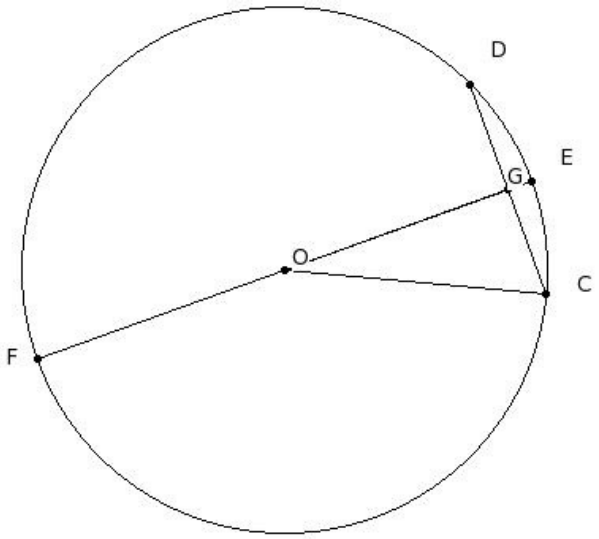
(i) 15.97 cm (ii) 18.97 cm (iii) 14.97 cm (iv) 17.97 cm (v) 16.97 cm

3. If a chord FG = 22 cm is drawn in a circle with radius OF = 12 cm, find its distance from the centre of the circle



(i) 5.80 cm (ii) 2.80 cm (iii) 4.80 cm (iv) 6.80 cm (v) 3.80 cm

4. The diameter EF of a circle with centre 'O' is perpendicular to the chord CD. If CD = 14.00 cm and EG = 1.55 cm, find the radius of the circle.



(i) 15.55 cm (ii) 14.55 cm (iii) 18.55 cm (iv) 17.55 cm (v) 16.55 cm

5. Which of the following statements are true?

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

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

6. Which of the following statements are true?

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

(i) {b,a} (ii) {a,d,e} (iii) {b,c,e} (iv) {b,a,d} (v) {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) A circle divides the plane on which it lies into three parts.
d) The area enclosed by a chord and its minor arc is called minor segment.
e) The area enclosed by a chord and its major arc is called major segment.

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

8. Which of the following statements are true?

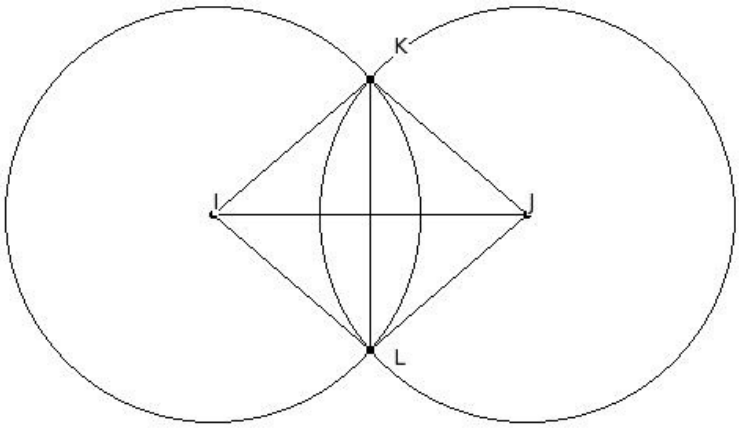
a) Two chords bisect each other.
b) The longest of all chords of a circle is called diameter.
c) The midpoint of any diameter of a circle is its centre.
d) A sector is the area enclosed by two radii and a chord.
e) The diameter divides the circle into two unequal parts.

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

9. FG , HI , JK , LM are chords of a circle with FG = 5 cm , HI = 1 cm , JK = 6.7 cm and LM = 7.07 cm. The chord farthest from the centre of the circle is

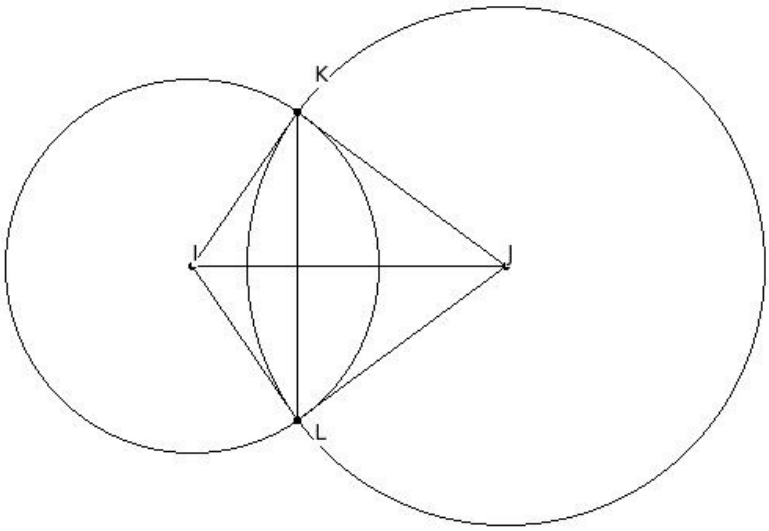
(i) FG = 5 cm (ii) JK = 6.7 cm (iii) LM = 7.07 cm (iv) HI = 1 cm

10. In the given figure, I and J are centres of two circles with equal radii intersecting at K and L. If IJ = 20 cm and KL = 17.2 cm, find the radii of the circles



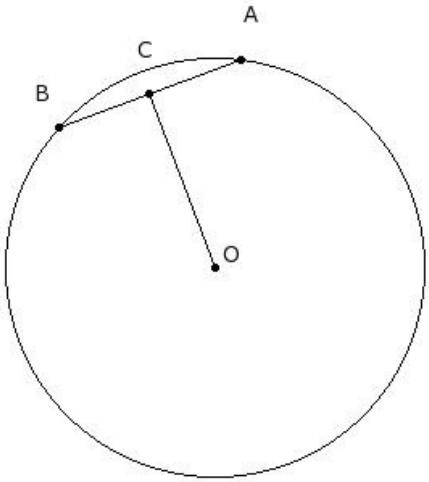
(i) 14.19 cm (ii) 13.19 cm (iii) 15.19 cm (iv) 11.19 cm (v) 12.19 cm

11. In the given figure, two circles of radii IK = 11.9 cm & JK = 16.5 cm intersect at K & L. The distance between the centres IJ = 20 cm, find the length of KL



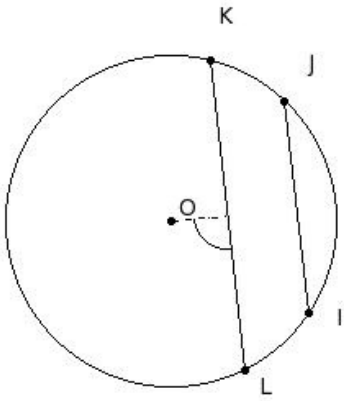
(i) 19.62 cm (ii) 18.62 cm (iii) 21.62 cm (iv) 17.62 cm (v) 20.62 cm

12. In the given figure, O is the centre of the circle. C is a point on chord AB such that AC = CB. Find ∠OCA



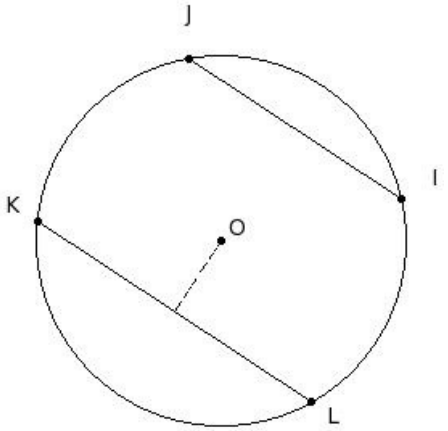
(i) 105° (ii) 90° (iii) 120° (iv) 95° (v) 100°

13. In the given figure, IJ ∥ KL. Length of chords IJ = 13 cm and KL = 19 cm.
If the distance between the chords is 4 cm, find the radius of the circle



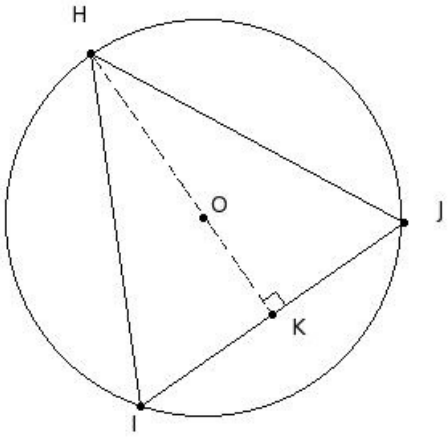
(i) 12.31 cm (ii) 10.31 cm (iii) 9.31 cm (iv) 11.31 cm (v) 8.31 cm

14. In the given figure, IJ ∥ KL. Length of chords IJ = 16 cm and KL = 20 cm.
If the distance between the chords is 14 cm, find the radius of the circle



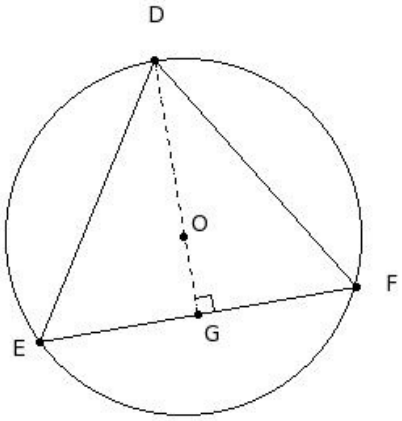
(i) 10.52 cm (ii) 13.52 cm (iii) 9.52 cm (iv) 12.52 cm (v) 11.52 cm

15. In the given figure, △HIJ is inscribed in a circle. If HI = HJ = 22 cm and IJ = 20 cm, find the radius of the circle



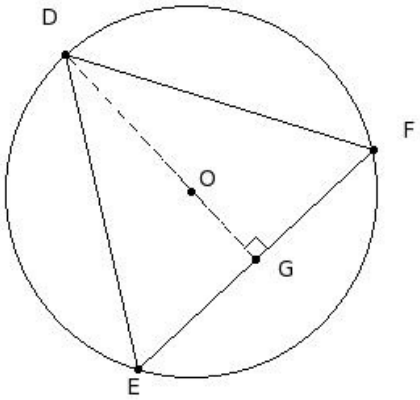
(i) 13.35 cm (ii) 10.35 cm (iii) 11.35 cm (iv) 14.35 cm (v) 12.35 cm

16. In the given figure, △DEF is an isosceles such that DE = DF. Given DO = 11 cm, DE = DF = 19 cm, find EF



(i) 19.16 cm (ii) 20.16 cm (iii) 17.16 cm (iv) 21.16 cm (v) 18.16 cm

17. In the given figure, △DEF is equilateral. Given DO = 12 cm, find EF



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

18. Two concentric circles are of radii 18 cm and 9 cm. Find the length of the chord of the outer circle that touches the inner circle

(i) 31.18 cm (ii) 32.18 cm (iii) 30.18 cm (iv) 33.18 cm (v) 29.18 cm

Assignment Key

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