EduSahara™ Assignment

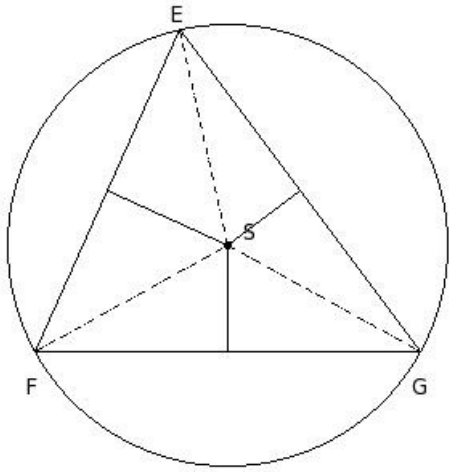
Name : Chord Properties of a Circle

Chapter : Circles

Grade : CBSE Grade IX

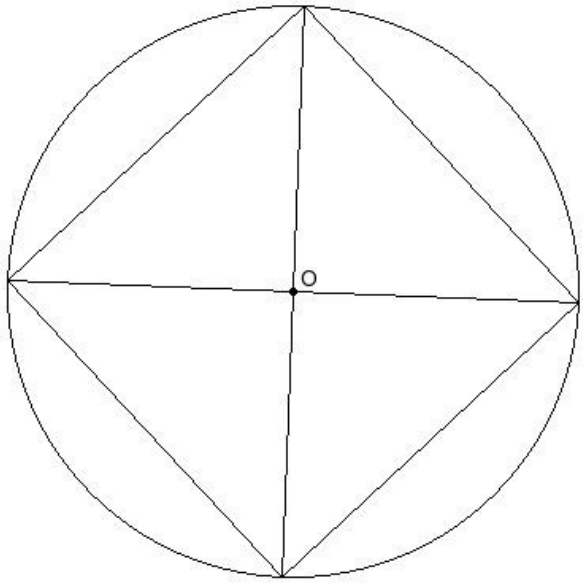
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1. In the given triangle S is the circumcentre. If SE = 13.70 cm, find the circumference of the circumcircle



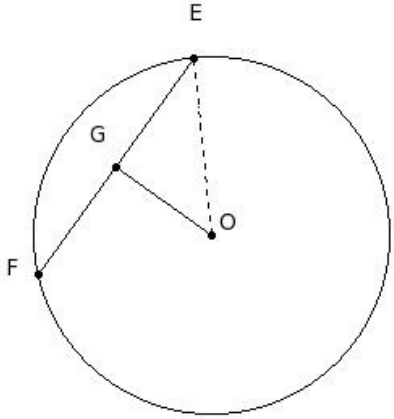
(i) 84.1 cm (ii) 87.1 cm (iii) 85.1 cm (iv) 86.1 cm (v) 88.1 cm

2. Find the side of the square in the following figure if the radius of the circle is 18.00 cm.



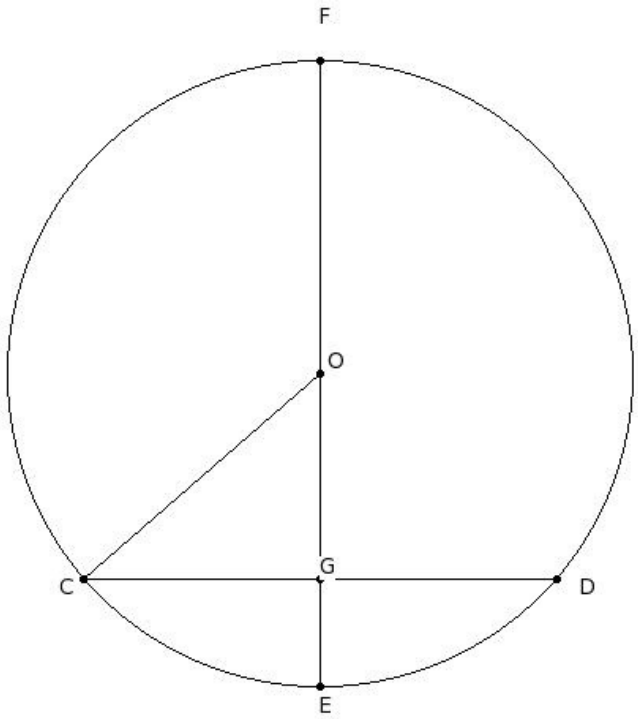
(i) 26.45 cm (ii) 24.45 cm (iii) 23.45 cm (iv) 27.45 cm (v) 25.45 cm

3. If a chord EF = 16 cm is drawn in a circle with radius OE = 11 cm, find its distance from the centre of the circle



(i) 9.55 cm (ii) 8.55 cm (iii) 5.55 cm (iv) 7.55 cm (v) 6.55 cm

4. The diameter EF of a circle with centre 'O' is perpendicular to the chord CD. If CD = 30.00 cm and EG = 6.85 cm, find the radius of the circle.



(i) 21.85 cm (ii) 20.85 cm (iii) 18.85 cm (iv) 17.85 cm (v) 19.85 cm

5. Which of the following statements are true?

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

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

6. Which of the following statements are true?

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

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

7. Which of the following statements are true?

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

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

8. Which of the following statements are true?

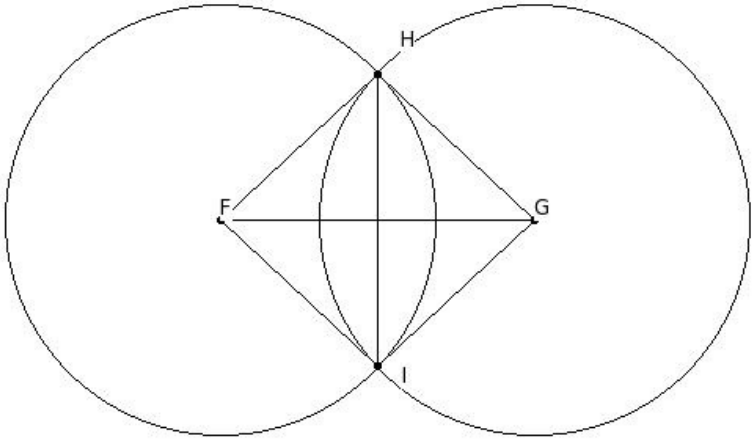
a) The longest of all chords of a circle is called diameter.
b) A sector is the area enclosed by two radii and a chord.
c) The midpoint of any diameter of a circle is its centre.
d) The diameter divides the circle into two unequal parts.
e) Two chords bisect each other.

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

9. CD , EF , GH , IJ are chords of a circle with CD = 7 cm , EF = 1 cm , GH = 6.5 cm and IJ = 4.04 cm. The chord farthest from the centre of the circle is

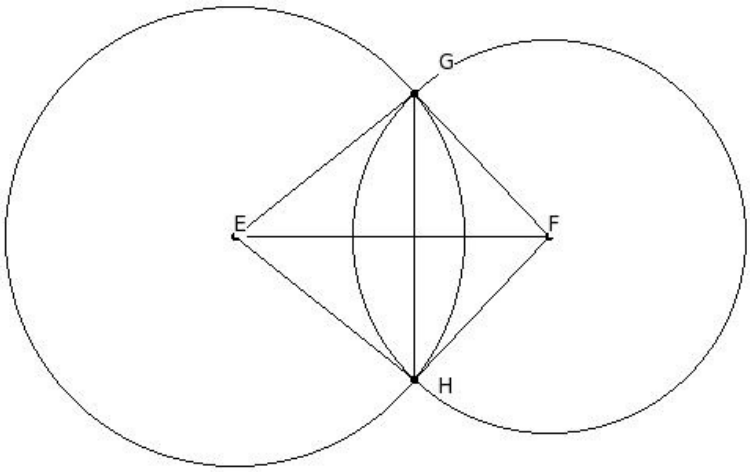
(i) EF = 1 cm (ii) GH = 6.5 cm (iii) IJ = 4.04 cm (iv) CD = 7 cm

10. In the given figure, F and G are centres of two circles with equal radii intersecting at H and I. If FG = 20 cm and HI = 18.6 cm, find the radii of the circles



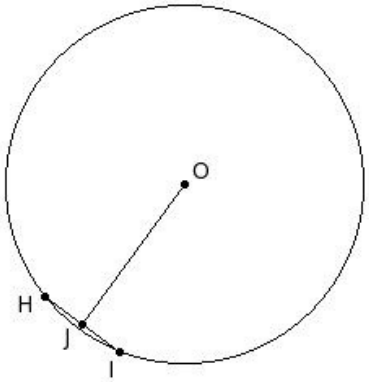
(i) 14.66 cm (ii) 15.66 cm (iii) 13.66 cm (iv) 12.66 cm (v) 11.66 cm

11. In the given figure, two circles of radii EG = 14.6 cm & FG = 12.5 cm intersect at G & H. The distance between the centres EF = 20 cm, find the length of GH



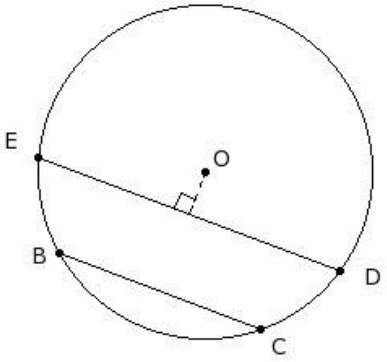
(i) 19.19 cm (ii) 20.19 cm (iii) 18.19 cm (iv) 17.19 cm (v) 16.19 cm

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



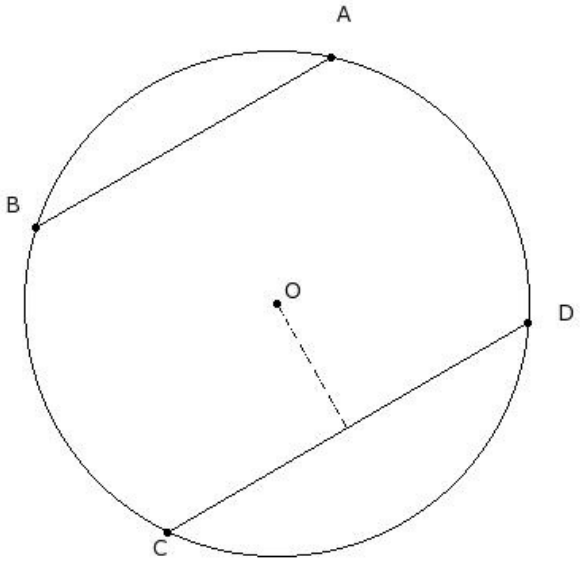
(i) 90° (ii) 100° (iii) 95° (iv) 105° (v) 120°

13. In the given figure, BC ∥ DE. Length of chords BC = 13 cm and DE = 20 cm.
If the distance between the chords is 5 cm, find the radius of the circle



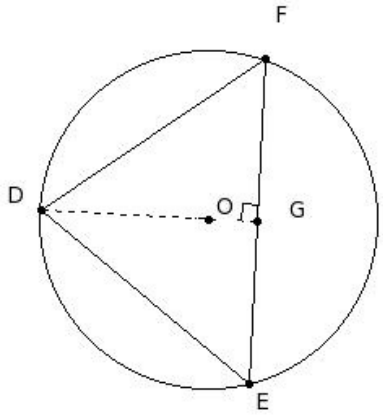
(i) 12.52 cm (ii) 11.52 cm (iii) 8.52 cm (iv) 10.52 cm (v) 9.52 cm

14. In the given figure, AB ∥ CD. Length of chords AB = 22 cm and CD = 26 cm.
If the distance between the chords is 21 cm, find the radius of the circle



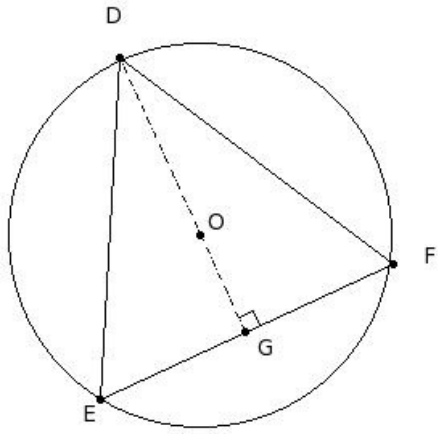
(i) 17.02 cm (ii) 15.02 cm (iii) 18.02 cm (iv) 14.02 cm (v) 16.02 cm

15. In the given figure, △DEF is inscribed in a circle. If DE = DF = 17 cm and EF = 20 cm, find the radius of the circle



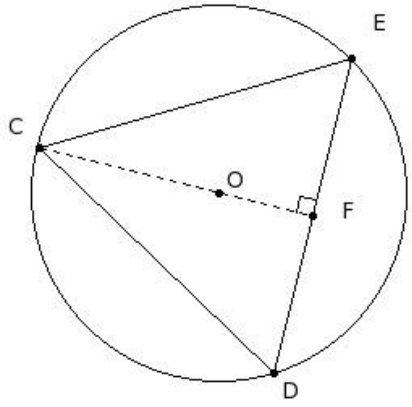
(i) 10.51 cm (ii) 11.51 cm (iii) 12.51 cm (iv) 8.51 cm (v) 9.51 cm

16. In the given figure, △DEF is an isosceles such that DE = DF. Given DO = 12 cm, DE = DF = 21 cm, find EF



(i) 21.33 cm (ii) 18.33 cm (iii) 20.33 cm (iv) 22.33 cm (v) 19.33 cm

17. In the given figure, △CDE is equilateral. Given CO = 11 cm, find DE



(i) 17.05 cm (ii) 20.05 cm (iii) 19.05 cm (iv) 21.05 cm (v) 18.05 cm

18. Two concentric circles are of radii 18 cm and 12 cm. Find the length of the chord of the outer circle that touches the inner circle

(i) 27.83 cm (ii) 26.83 cm (iii) 28.83 cm (iv) 24.83 cm (v) 25.83 cm

Assignment Key

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

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