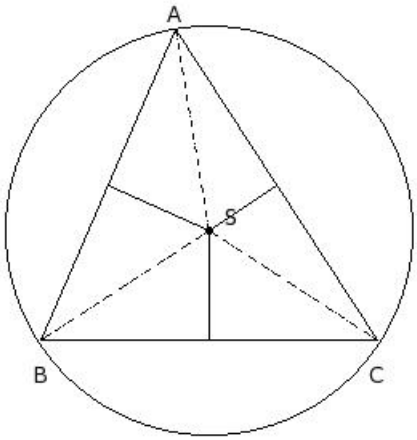
EduSahara™ Learning Center Assignment

Grade : Class IX, CBSE
Chapter : Circles
Name : Chord Properties of a Circle

---

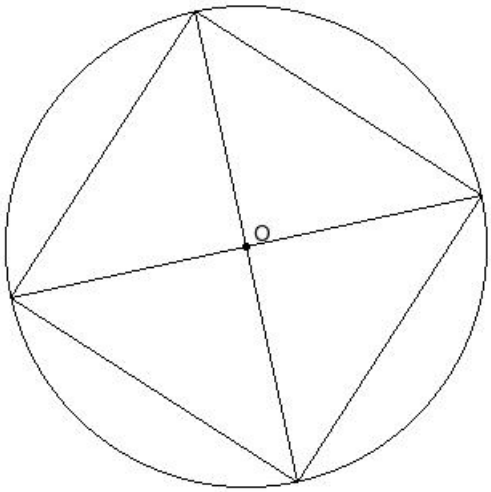
1. In the given triangle S is the circumcentre. If SA = 12.70 cm, find the circumference of the circumcircle



(i) 78.8 cm (ii) 80.8 cm (iii) 81.8 cm (iv) 79.8 cm (v) 77.8 cm

---

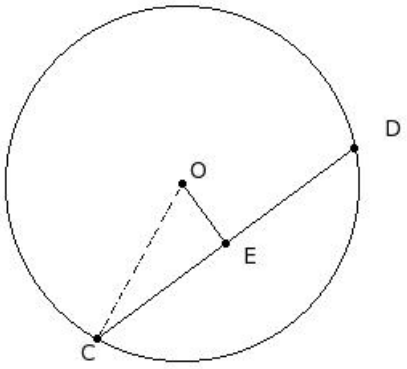
2. Find the side of the square in the following figure if the radius of the circle is 15.00 cm.



(i) 23.21 cm (ii) 21.21 cm (iii) 20.21 cm (iv) 19.21 cm (v) 22.21 cm

---

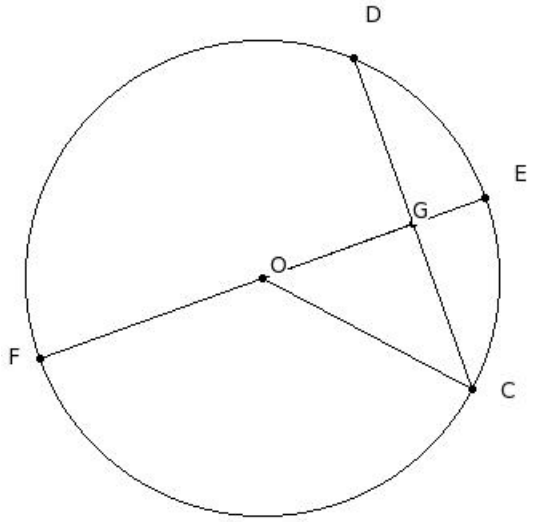
3. If a chord CD = 20 cm is drawn in a circle with radius OC = 11 cm, find its distance from the centre of the circle



(i) 2.58 cm (ii) 6.58 cm (iii) 5.58 cm (iv) 4.58 cm (v) 3.58 cm

---

4. The diameter EF of a circle with centre 'O' is perpendicular to the chord CD. If CD = 22.00 cm and EG = 4.87 cm, find the radius of the circle.



(i) 12.87 cm (ii) 14.87 cm (iii) 13.87 cm (iv) 16.87 cm (v) 15.87 cm

---

5. Which of the following statements are true?
   a) A chord divides a circle into two sectors
   b) The radius is the shortest chord
   c) A chord divides a circle into two segments
   d) Atmost one chord can be drawn on a circle with a certain length
   e) The diameter is the longest chord

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

---

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

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

---

7. Which of the following statements are true?
   a) The diameter divides the circle into two unequal parts
   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 area enclosed by a chord and its major arc is called major segment
   e) A sector is the area enclosed by two radii and a chord

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

---

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

(i) (ii) (iii) (iv) (v)

{d,b,a} {b,a} {c,e,a} {c,e} {a,e}

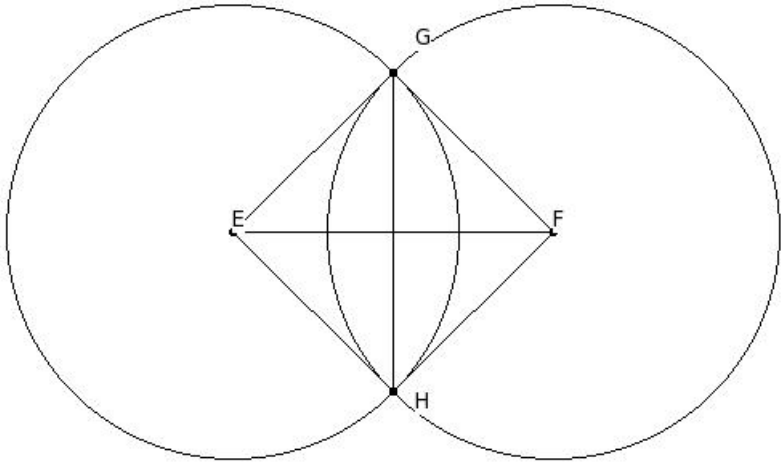
---

9. AB , CD , EF , GH are chords of a circle with AB = 6 cm , CD = 3 cm , EF = 7.5 cm and GH = 6.04 cm. The chord farthest from the centre of the circle is

(i) AB = 6 cm (ii) EF = 7.5 cm (iii) GH = 6.04 cm (iv) CD = 3 cm

---

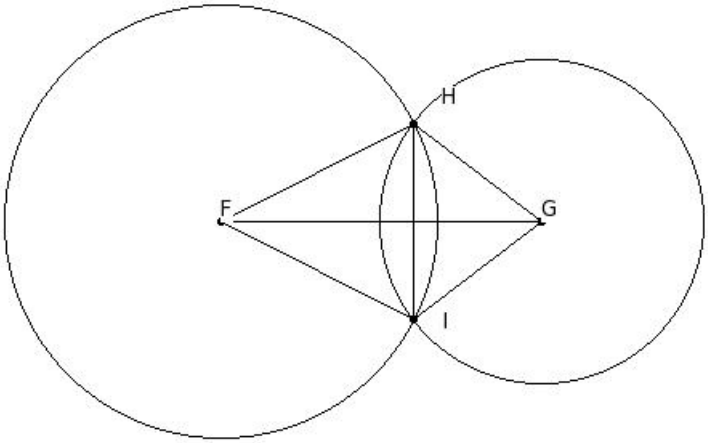
10. In the given figure, E and F are centres of two circles with equal radii intersecting at G and H. If EF = 20 cm and GH = 19.8 cm, find the radii of the circles



(i) 14.07 cm (ii) 13.07 cm (iii) 15.07 cm (iv) 12.07 cm (v) 16.07 cm

---

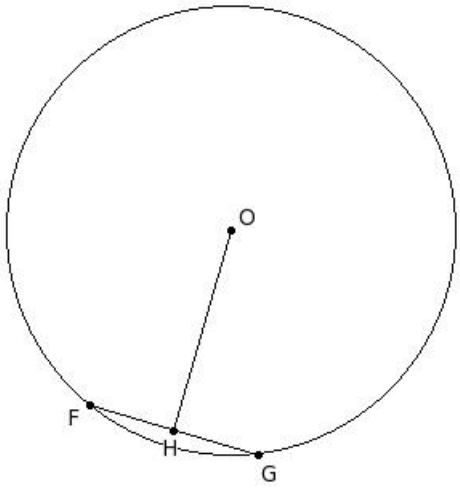
11. In the given figure, two circles of radii FH = 13.5 cm & GH = 10.1 cm intersect at H & I. The distance between the centres FG = 20 cm, find the length of HI



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

---

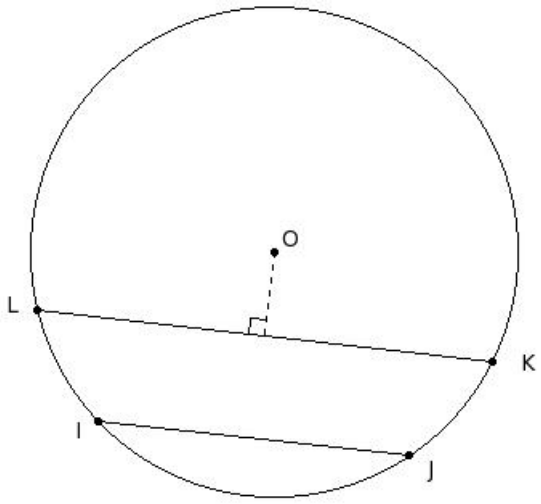
12. In the given figure, O is the centre of the circle. H is a point on chord FG such that FH = HG. Find ∠OHF



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

---

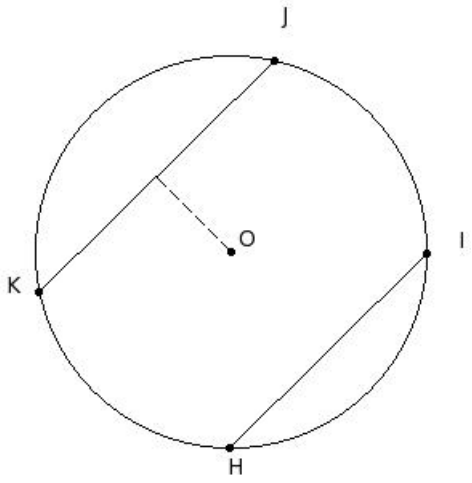
13. In the given figure, IJ ‖ KL. Length of chords IJ = 20 cm and KL = 29 cm.
If the distance between the chords is 6 cm , find the radius of the circle



(i) 17.76 cm (ii) 14.76 cm (iii) 16.76 cm (iv) 13.76 cm (v) 15.76 cm

---

14. In the given figure, HI ‖ JK. Length of chords HI = 17 cm and JK = 21 cm.
If the distance between the chords is 15 cm , find the radius of the circle

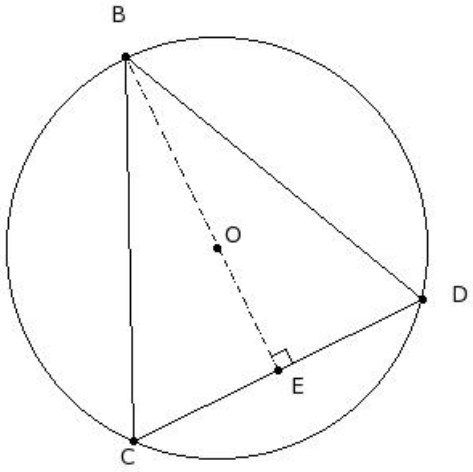


(i) 12.21 cm (ii) 10.21 cm (iii) 13.21 cm (iv) 11.21 cm (v) 14.21 cm

---

15. In the given figure, △BCD is inscribed in a circle. If BC = BD = 24 cm and CD = 20 cm, find the radius of the

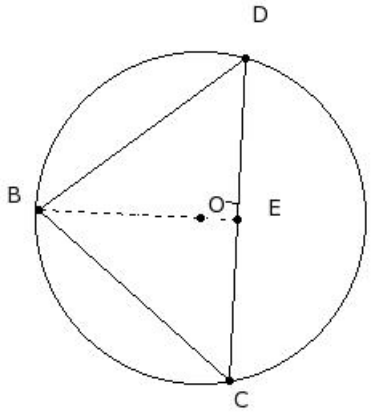
circle



(i) 13.20 cm (ii) 11.20 cm (iii) 14.20 cm (iv) 12.20 cm (v) 15.20 cm

---

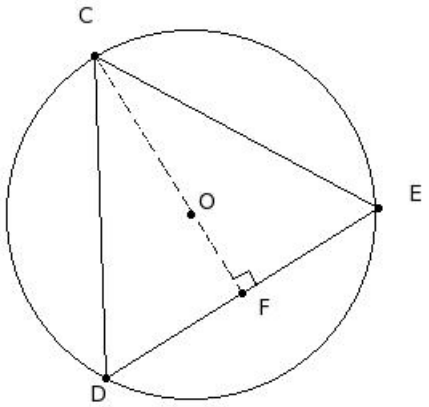
16. In the given figure, △BCD is an isosceles such that BC = BD. Given BO = 10 cm, BC = BD = 16 cm, find CD



(i) 21.20 cm (ii) 19.20 cm (iii) 18.20 cm (iv) 20.20 cm (v) 17.20 cm

---

17. In the given figure, △CDE is equilateral. Given CO = 12 cm, find CD



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

---

18. Two concentric circles are of radii 17 cm and 14 cm. Find the length of the chord of the outer circle that touches the inner circle

(i) 17.29 cm (ii) 19.29 cm (iii) 20.29 cm (iv) 21.29 cm (v) 18.29 cm

---

Assignment Key

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