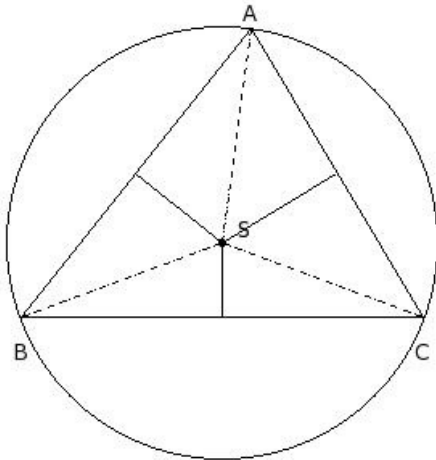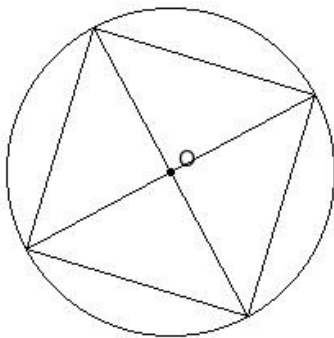1. In the given triangle S is the circumcentre. If SA = 13.40 cm, find the circumference of the circumcircle
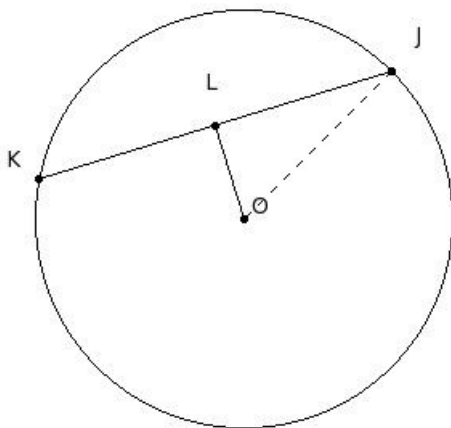

(i) 85.2 cm   (ii) 83.2 cm   (iii) 86.2 cm   (iv) 84.2 cm   (v) 82.2 cm

2. Find the side of the square in the following figure if the radius of the circle is 10.00 cm.
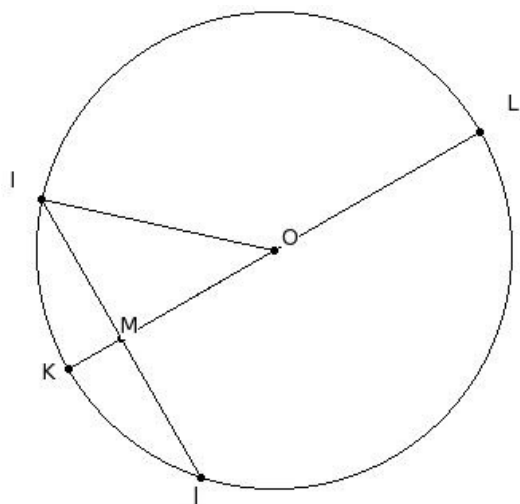

(i) 15.14 cm   (ii) 12.14 cm   (iii) 14.14 cm   (iv) 13.14 cm   (v) 16.14 cm

3. If a chord JK = 23 cm is drawn in a circle with radius OJ = 13 cm, find its distance from the centre of the circle

(i) 7.06 cm   (ii) 8.06 cm   (iii) 4.06 cm   (iv) 6.06 cm   (v) 5.06 cm

4. The diameter KL of a circle with centre 'O' is perpendicular to the chord IJ. If IJ = 20.00 cm and KM = 3.87 cm, find the radius of the circle.


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

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5. With the vertices of a triangle △FGH as centres, three circles are drawn touching each other externally. If the sides of the triangle are 13 cm , 18 cm and 15 cm , find the radii of the circles

(i) 5 cm , 8 cm & 10 cm respectively (ii) 5 cm , 13 cm & 10 cm respectively

(iii) 5 cm , 8 cm & 15 cm respectively (iv) 10 cm , 13 cm & 15 cm respectively

(v) 10 cm , 8 cm & 10 cm respectively

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6. In the given figure, O is the centre of the circle. I is a point on chord GH such that GI = IH. Find ∠OIG
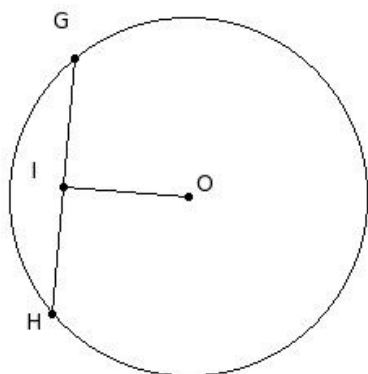

(i) 120° (ii) 90° (iii) 95° (iv) 100° (v) 105°

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7. Which of the following statements are true?

a) A circle divides the plane into three mutually disjoint sets of points.

b) $\dfrac{22}{7}$ is a rational number.

c) π is a rational number.

d) All chords of a circle are diameters.

e) All diameters of a circle are chords.

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

8. DE is a line segment and G is its mid-point. Three semi-circles are drawn with DG , GE and DE as diameters. F , H and G respectively are the centres of these semi-circles. A new circle is drawn touching these three semi-circles. Find its radius, given DF = 6 cm
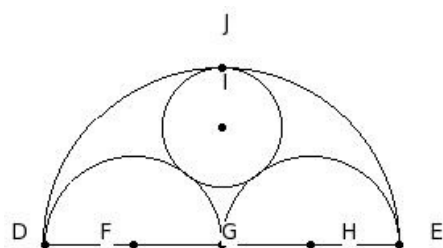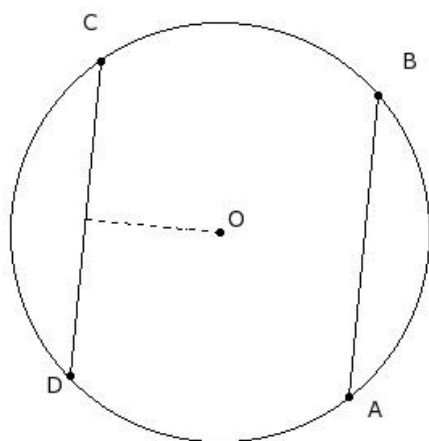

(i) 6.00 cm (ii) 5.00 cm (iii) 3.00 cm (iv) 2.00 cm (v) 4.00 cm

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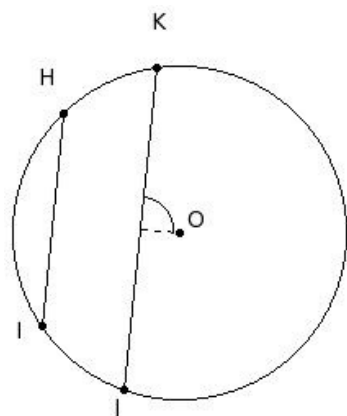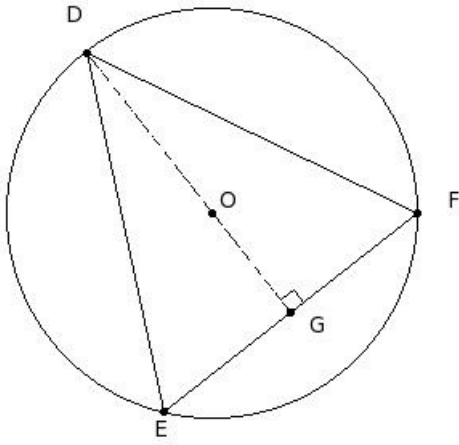

(i) 11.52 cm (ii) 8.52 cm (iii) 10.52 cm (iv) 12.52 cm (v) 9.52 cm

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10. In the given figure, AB ∥ CD. Length of chords AB = 19 cm and CD = 20 cm. If the distance between the chords is 17 cm , find the radius of the circle
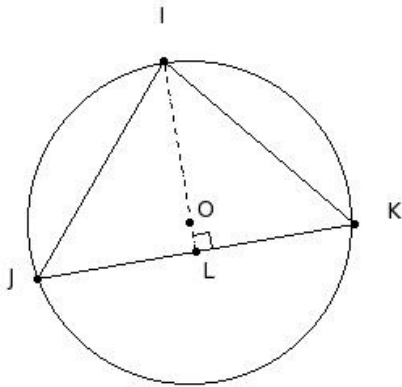

(i) 13.94 cm (ii) 12.94 cm (iii) 10.94 cm (iv) 11.94 cm (v) 14.94 cm

11. In the given figure, △DEF is inscribed in a circle. If DE = DF = 23 cm and EF = 20 cm, find the radius of the circle

D

O   F

G
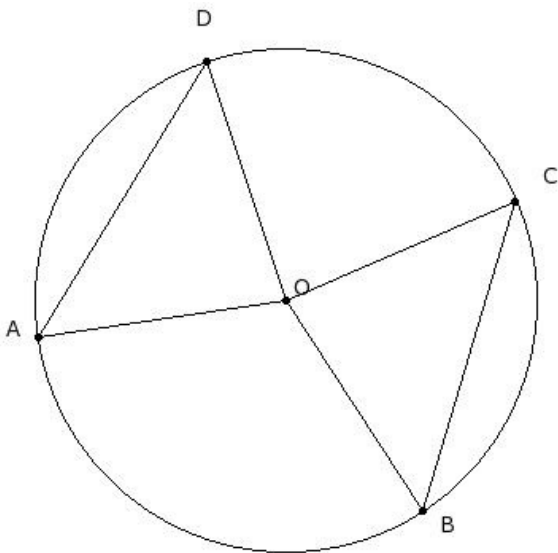
E

(i) 10.77 cm (ii) 11.77 cm (iii) 13.77 cm (iv) 14.77 cm (v) 12.77 cm

12. In the given figure, △IJK is an isosceles such that IJ = IK. Given IO = 10 cm, IJ = IK = 16 cm, find JK
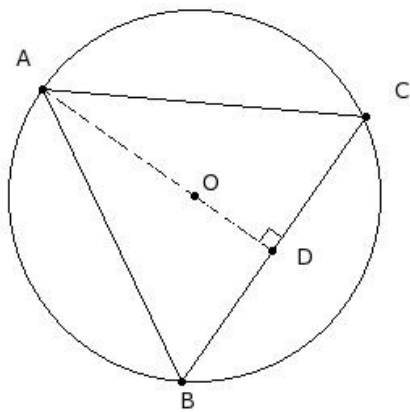
I

O

K

J   L

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

13. In the given figure, AD & BC are two chords of equal length. Given ∠DAO = 50°, find ∠COB

D

C

O

A

B

(i) 110° (ii) 90° (iii) 85° (iv) 95° (v) 80°

14. In the given figure, △ABC is equilateral. Given AO = 12 cm, find AB


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

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15. Two concentric circles are of radii 17 cm and 11 cm. Find the length of the chord of the outer circle that touches the inner circle

    (i) 26.92 cm (ii) 23.92 cm (iii) 27.92 cm (iv) 24.92 cm (v) 25.92 cm

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16. In the given figure, G and H are centres of two circles with equal radii intersecting at I and J. If GH = 20 cm and IJ = 18.2 cm, find the radii of the circles
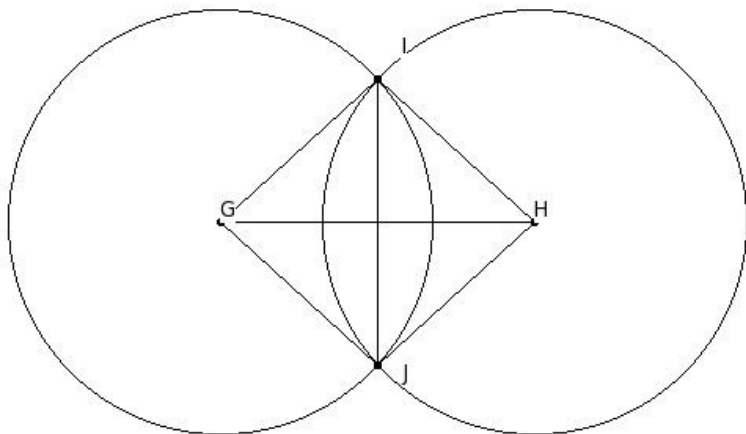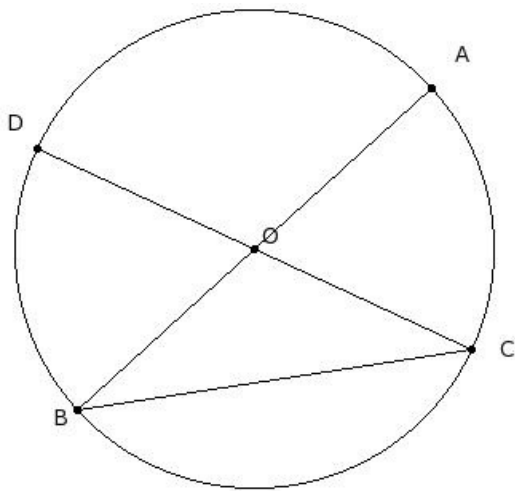

    (i) 12.52 cm (ii) 11.52 cm (iii) 15.52 cm (iv) 13.52 cm (v) 14.52 cm

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17. In the given figure, two circles of radii CE = 15.4 cm & DE = 8.1 cm intersect at E & F. The distance between the centres CD = 20 cm, find the length of EF
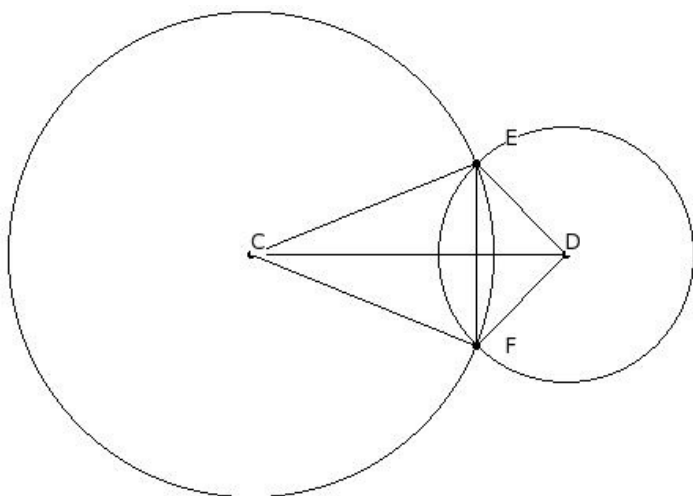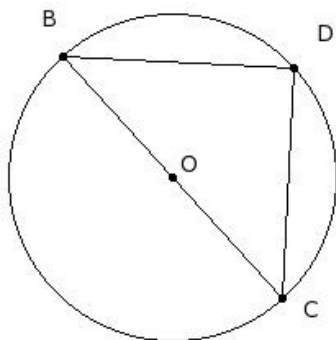

    (i) 13.49 cm (ii) 9.49 cm (iii) 10.49 cm (iv) 12.49 cm (v) 11.49 cm

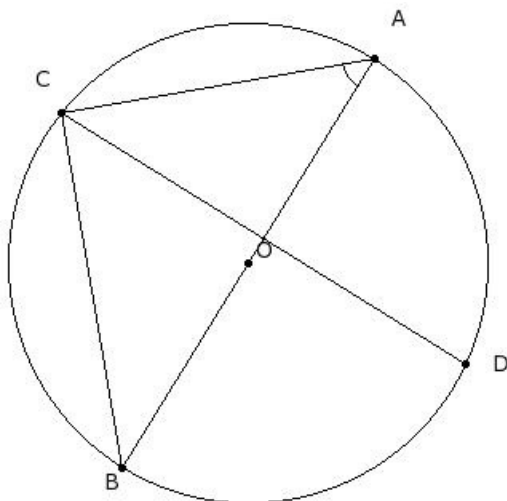18. In the given figure, AB & CD are diameters of the circle. If ∠ABC = 33.5° find, ∠BOC

(i) 143° (ii) 113° (iii) 118° (iv) 123° (v) 128°

19. In the given figure BD & CD are equal length chords of the circle. Find ∠DBC
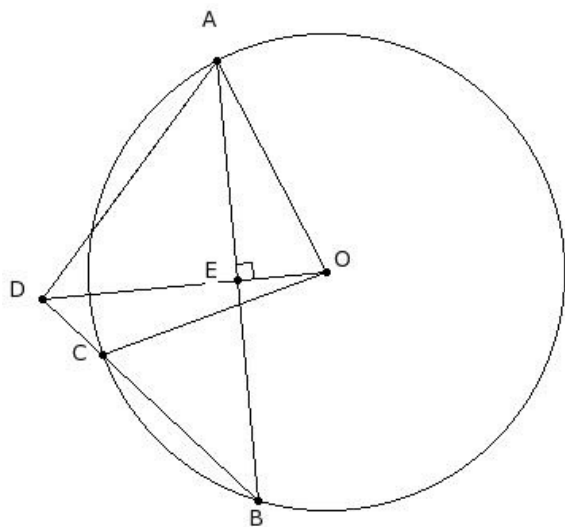

(i) 75° (ii) 50° (iii) 60° (iv) 45° (v) 55°

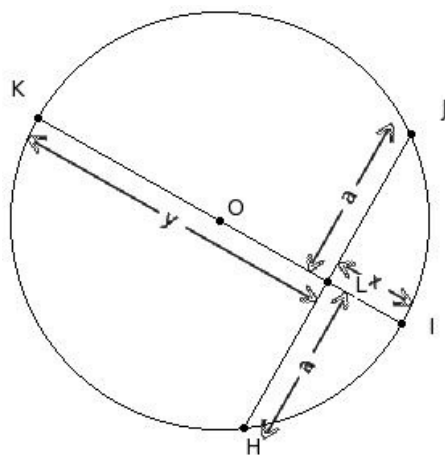20. In the given figure, AB is a diameter of the circle with centre O. If ∠BAC = 48.48° and BC = BD, find ∠DCA

(i) 56.52° (ii) 41.52° (iii) 46.52° (iv) 51.52° (v) 71.52°

21. In the given figure, O is the centre of the circle, and OE ⊥ AB. If ∠ABC = 41.5°, find ∠ODC

(i) 48.5° (ii) 58.5° (iii) 78.5° (iv) 53.5° (v) 63.5°

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22. In the given figure, if y = 21 cm and a = 11 cm, find x

(i) 3.76 cm (ii) 4.76 cm (iii) 6.76 cm (iv) 5.76 cm (v) 7.76 cm

Assignment Key

1) (iv)	2) (iii)	3) (iv)	4) (ii)	5) (i)	6) (ii)
7) (i)	8) (v)	9) (iii)	10) (ii)	11) (v)	12) (iii)
13) (v)	14) (i)	15) (v)	16) (iv)	17) (v)	18) (ii)
19) (iv)	20) (ii)	21) (i)	22) (iv)		