EduSahara™ Assignment

Name : Circle Basics

Chapter : Chord Properties of a Circle

Grade : ICSE Grade X

1. The mid-point of the diameter of a circle is called

   (i) chord (ii) circumference (iii) segment (iv) major segment (v) centre

2. A line segment joining any point on the circle with its centre is called

   (i) radius (ii) diameter (iii) major segment (iv) centre (v) segment

3. A line segment having its end points on the circle is called a

   (i) chord (ii) centre (iii) major segment (iv) diameter (v) segment

4. A chord that passes through the centre of the circle is called

   (i) diameter (ii) centre (iii) major segment (iv) radius (v) semi-circle

5. A chord of a circle divides the whole circular region into two parts, each called a

   (i) circumference (ii) diameter (iii) major segment (iv) radius (v) segment

6. The segment of the circle containing the centre of the circle is called

   (i) diameter (ii) chord (iii) radius (iv) major segment (v) segment

7. Half of a circle is called

   (i) centre (ii) diameter (iii) chord (iv) major segment (v) semi-circle

8. The perimeter of a circle is called

   (i) circumference (ii) centre (iii) major segment (iv) radius (v) chord

9. Which of the following statements are true?

   a) Every circle has a unique centre.
   b) Every circle has a unique diameter.
   c) A line can meet a circle atmost at two points.
   d) Each radius of a circle is also a chord of the circle.
   e) A circle consists of an infinite number of points.

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

10. Which of the following statements are true?

    a) An infinite number of chords may be drawn for a circle.
    b) Two semi-circles of a circle together make the whole circle.
    c) Every circle has a unique diameter.
    d) An infinite number of diameters may be drawn for a circle.
    e) One and only one tangent can be drawn to a circle from a point outside it.

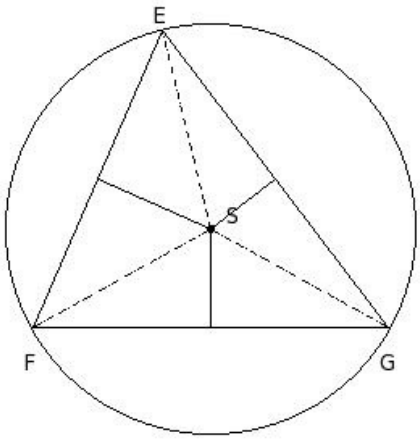
    (i) {a,b,d} (ii) {e,b} (iii) {c,a} (iv) {c,e,d} (v) {c,a,b}

11. Which of the following statements are true?

a) One and only one tangent can be drawn to pass through a point on a circle.
b) One and only one tangent can be drawn to a circle from a point outside it.
c) Every circle has a unique diameter.
d) Diameter of a circle is a part of the semi-circle of the circle.
e) A secant of a circle is a segment having its end points on the circle.

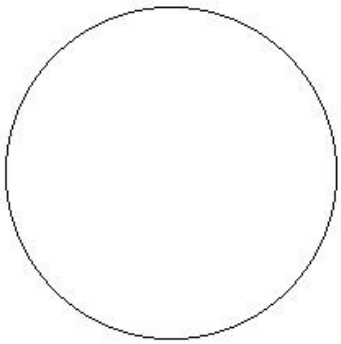
(i) {e,b,a} (ii) {b,a} (iii) {a,d} (iv) {c,d,a} (v) {c,d}

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



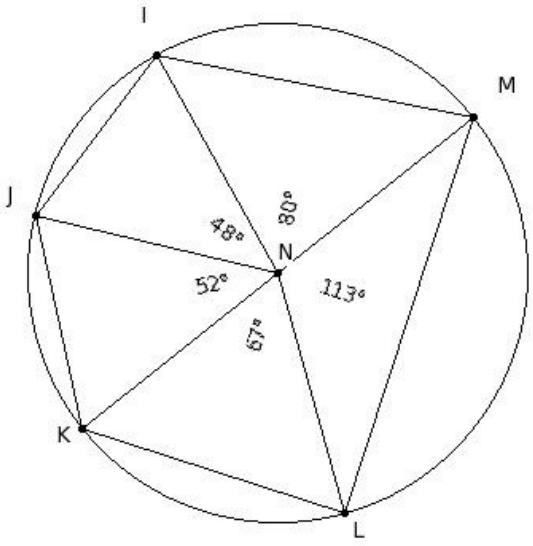
(i) 79.8 cm (ii) 80.8 cm (iii) 78.8 cm (iv) 77.8 cm (v) 81.8 cm

13. Identify the figure below



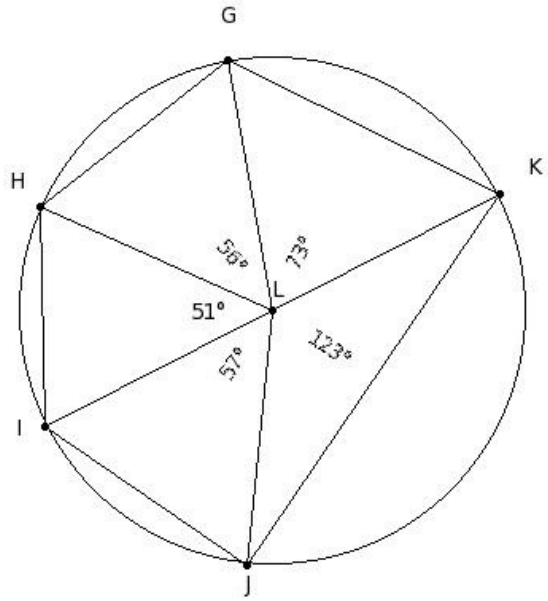
(i) triangle (ii) quadrilateral (iii) octagon (iv) heptagon (v) circle

14. The centre of the circle is



(i) N (ii) I (iii) L (iv) K (v) J

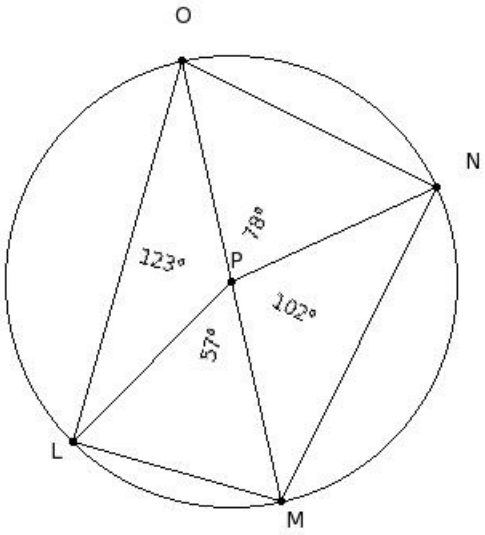
15. The chords of the circle are



(i) $\overline{HI}, \overline{IJ}, \overline{JK}, \overline{KG}$ (ii) $\overline{LG}, \overline{LH}, \overline{LI}, \overline{LJ}, \overline{LK}$ (iii) $\overline{GH}, \overline{HI}, \overline{IJ}, \overline{JK}, \overline{KG}$ (iv) $\overline{GH}, \overline{HI}, \overline{IJ}, \overline{JK}, \overline{KG}, \overline{LI}$

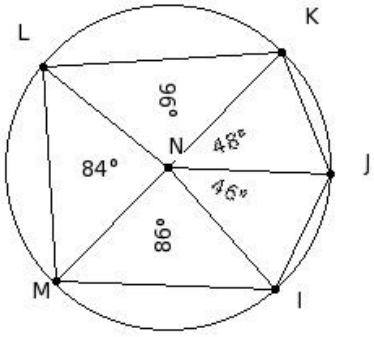
(v) $\overline{GH}, \overline{HI}, \overline{IJ}, \overline{JK}, \overline{KG}, \overline{IK}$

16. The diameters of the circle are



(i) $\overline{MO}$ (ii) $\overline{PL}, \overline{PM}, \overline{PN}, \overline{PO}$ (iii) $\overline{PL}, \overline{PM}, \overline{PN}, \overline{PO}, \overline{MO}$ (iv) $\overline{LM}, \overline{MN}, \overline{NO}, \overline{OL}$ (v) $\overline{LM}, \overline{MN}, \overline{NO}, \overline{OL}, \overline{MO}$

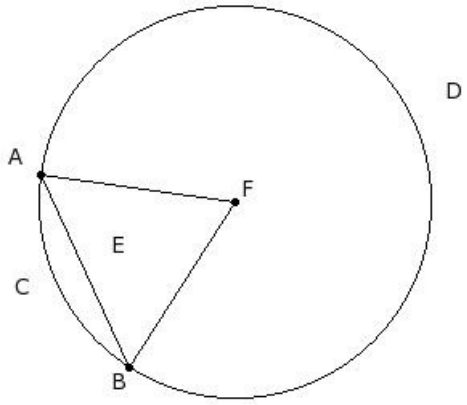
17. The radii of the circle are



(i) $\overline{IJ}, \overline{JK}, \overline{KL}, \overline{LM}, \overline{MI}, \overline{NM}$ (ii) $\overline{NI}, \overline{NJ}, \overline{NK}, \overline{NL}, \overline{NM}$ (iii) $\overline{JK}, \overline{KL}, \overline{LM}, \overline{MI}$ (iv) $\overline{IJ}, \overline{JK}, \overline{KL}, \overline{LM}, \overline{MI}, \overline{KM}$

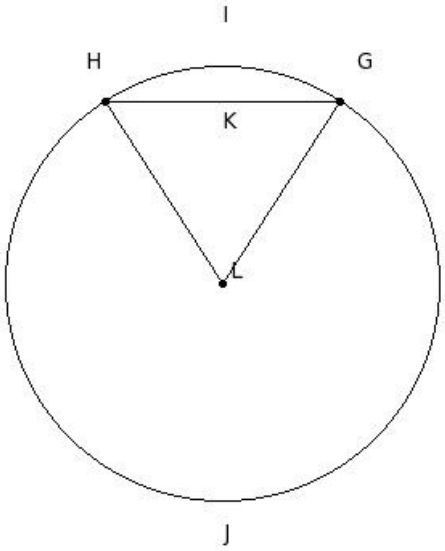
(v) $\overline{IJ}, \overline{JK}, \overline{KL}, \overline{LM}, \overline{MI}$

18. The minor sector of the circle is



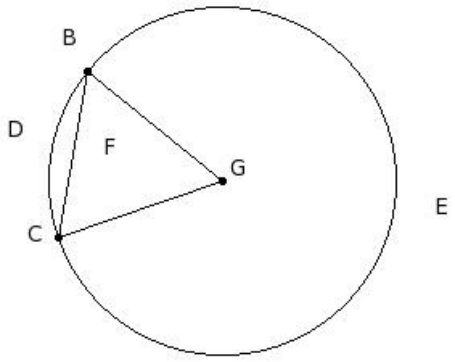
(i) FACBF (ii) FADBF (iii) ACBEA (iv) ACB (v) ADB

19. The major sector of the circle is



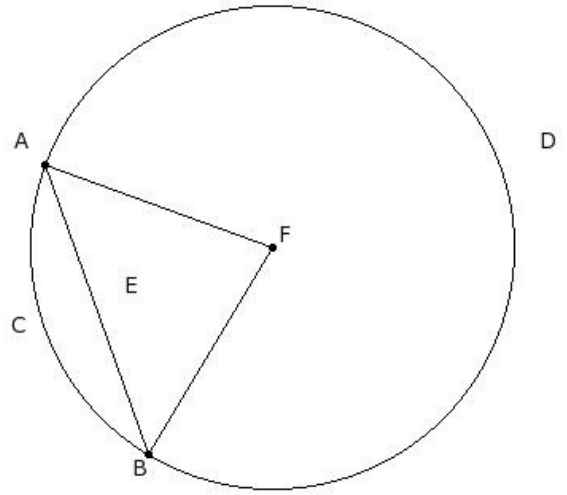
(i) GJHKG (ii) LGJHL (iii) GIH (iv) LGIHL (v) GIHKG

20. The minor arc of the circle is



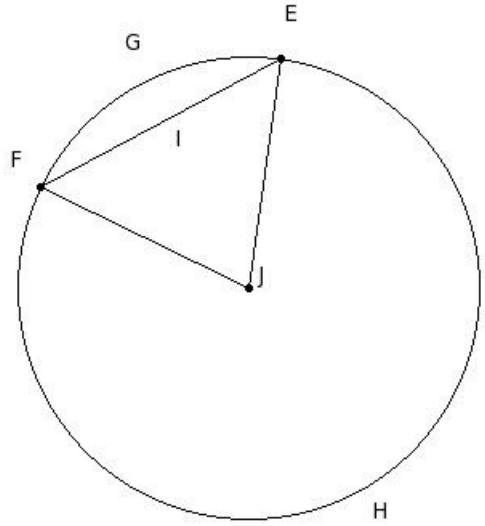
(i) BDCFB (ii) BEC (iii) BDC (iv) GBDCG (v) BECFB

21. The major arc of the circle is



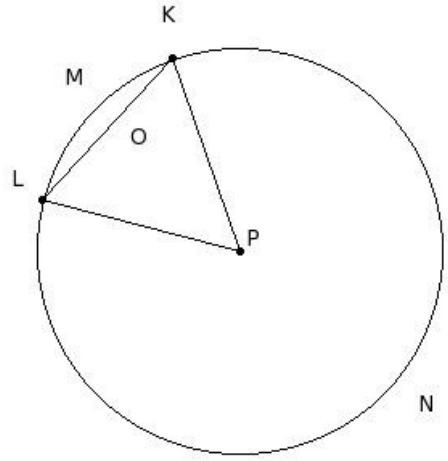
(i) FACBF (ii) ADB (iii) ACBEA (iv) FADBF (v) ADBEA

22. The minor segment of the circle is



(i) JEHFJ (ii) JEGFJ (iii) EGFIE (iv) EHF (v) EGF

23. The major segment of the circle is



(i) KMLOK (ii) PKMLP (iii) KNLOK (iv) KNL (v) KML

24. The distance around the circle is called

(i) circumference (ii) arc (iii) chord (iv) radius (v) diameter

25. A line which intersects the circle at two distinct points is called a

(i) quadrant (ii) chord (iii) radius (iv) secant (v) diameter

26. A line which touches a circle at only one point is called a

(i) chord (ii) radius (iii) tangent (iv) quadrant (v) centre

27. If the two radii OP and OQ of a circle are at right angles to each other, then the sector OPQ is called a

(i) centre (ii) quadrant (iii) major segment (iv) diameter (v) radius

28. Which of the following statements are true?

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

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

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

30. 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 major arc is called major segment.
d) A sector is the area enclosed by two radii and a chord.
e) The area enclosed by a chord and its minor arc is called minor segment.

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

31. Which of the following statements are true?

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

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

32. Which of the following statements are true?

a) A cyclic quadrilateral is a regular polygon.
b) If a parallelogram is cyclic, it is a rectangle.
c) If a trapezium is cyclic, it is a rectangle.
d) If a rhombus is cyclic, it is a square.
e) If a kite is cyclic, it is a square.

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

33. Which of the following statements are true?

a) Atmost one circle can be drawn passing through three non-collinear points.
b) Only one circle can be drawn with a centre.
c) Only one circle can be drawn passing through two points.
d) Infinite circles can be drawn passing through three collinear points.
e) Exactly two tangents can be drawn parallel to a secant.

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

34. Which of the following statements are true?

a) A secant and a chord are same.
b) A radius is a limiting case of a diameter.
c) A diameter is a limiting case of a chord.
d) A secant has two end points.
e) A tangent is the limiting case of a secant.

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

35. The point of intersection of the angular bisectors of a triangle is

(i) centroid (ii) incentre (iii) orthocentre (iv) circumcentre (v) excentre

36. EF , GH , IJ , KL are chords of a circle with EF = 8 cm , GH = 3 cm , IJ = 7.5 cm and KL = 4.08 cm. The chord farthest from the centre of the circle is

(i) EF = 8 cm (ii) GH = 3 cm (iii) IJ = 7.5 cm (iv) KL = 4.08 cm

37. Circles having common centre are called

(i) concentric circles (ii) similar circles (iii) intersecting circles (iv) congruent circles

38. If two circles are concentric, then

(i) their perimeters are same (ii) their radii are same (iii) their diameters are same

(iv) their centres are same

39. Which of the following figures represent a chord ?

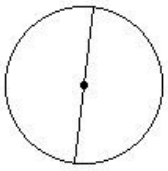


fig I

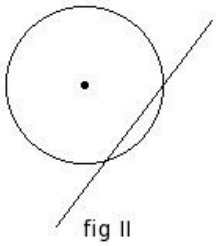


fig II

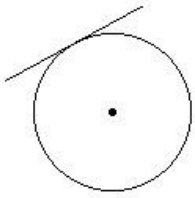


fig III

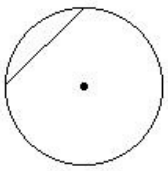


fig IV

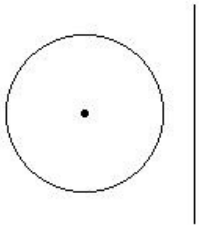


fig V

(i) fig III (ii) fig V (iii) fig IV (iv) fig I (v) fig II

40. Which of the following figures represent a diameter ?

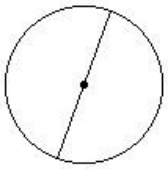


fig I

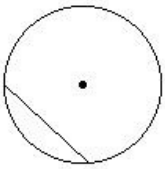


fig II

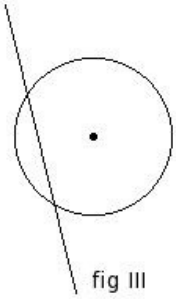


fig III

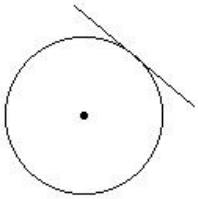


fig IV

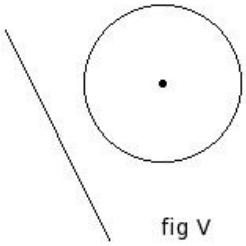


fig V

(i) fig I (ii) fig V (iii) fig III (iv) fig II (v) fig IV

41. Which of the following figures represent a secant ?

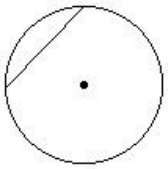


fig I

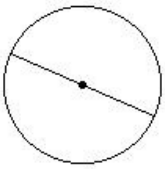


fig II

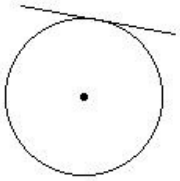


fig III

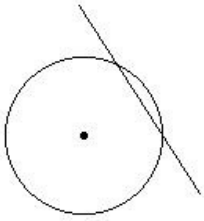


fig IV

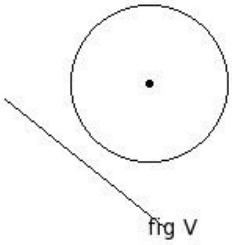


fig V

(i) fig III (ii) fig IV (iii) fig II (iv) fig V (v) fig I

42. Which of the following figures represent a tangent ?

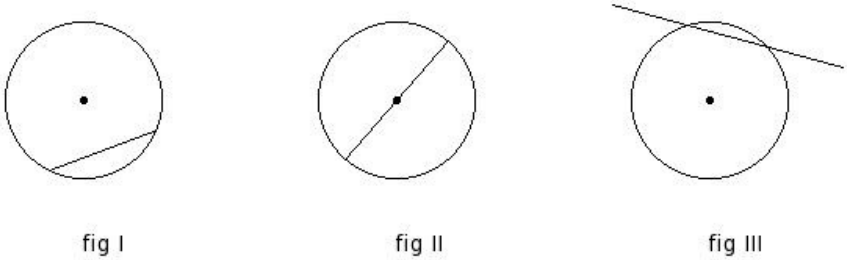


fig I fig II fig III

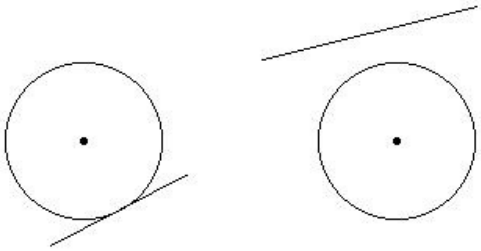


fig IV fig V

(i) fig I (ii) fig III (iii) fig V (iv) fig IV (v) fig II

43. Which of the following statements are true?

a) A circle divides the plane into three mutually disjoint sets of points.
b) All chords of a circle are diameters.
c) All diameters of a circle are chords.
d) $\frac{22}{7}$ is a rational number.
e) π is a rational number.

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

44. Points which lie on the circumference of the circle are called

(i) Coincident points (ii) Concurrent points (iii) Cyclic points (iv) Concyclic points (v) Similar points

45. The angle subtended by the semicircle at the centre is

(i) 210° (ii) 180° (iii) 195° (iv) 190° (v) 185°

46. The angle subtended by the diameter at any point on the circle is

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

47. If the radius of the circumcircle is half the length of a side of the triangle, then the triangle is

(i) acute angled triangle (ii) obtuse angled triangle (iii) right angle triangle (iv) equilateral triangle

48. Which of the following statements are true?

a) Angle subtended in the major segment is obtuse.
b) The angle subtended in a semicircle is a right angle.
c) Angle subtended by the major arc in its alternate segment is obtuse.
d) Angle subtended by the major arc at the centre is acute.
e) If two chords are equal, then they are equidistant from the centre of the circle.

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

49. In triangle IJK, if a circle is drawn with JK as diameter and if it passes through I it is a

(i) acute angled triangle (ii) obtuse angled triangle (iii) right angle triangle (iv) equilateral triangle

Assignment Key

1) (v)	2) (i)	3) (i)	4) (i)	5) (v)	6) (iv)
7) (v)	8) (i)	9) (v)	10) (i)	11) (iii)	12) (i)
13) (v)	14) (i)	15) (iii)	16) (i)	17) (ii)	18) (i)
19) (ii)	20) (iii)	21) (ii)	22) (iii)	23) (iii)	24) (i)
25) (iv)	26) (iii)	27) (ii)	28) (v)	29) (ii)	30) (v)
31) (iii)	32) (i)	33) (v)	34) (iii)	35) (ii)	36) (ii)
37) (i)	38) (iv)	39) (iii)	40) (i)	41) (ii)	42) (iv)
43) (i)	44) (iv)	45) (ii)	46) (iv)	47) (iii)	48) (iv)
49) (iii)					