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) segment (ii) circumference (iii) chord (iv) centre (v) diameter

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

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

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

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

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

   (i) radius (ii) circumference (iii) diameter (iv) chord (v) semi-circle

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

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

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

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

7. Half of a circle is called

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

8. The perimeter of a circle is called

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

9. Which of the following statements are true?

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

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

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) One and only one tangent can be drawn to a circle from a point outside it.
    e) An infinite number of diameters may be drawn for a circle.

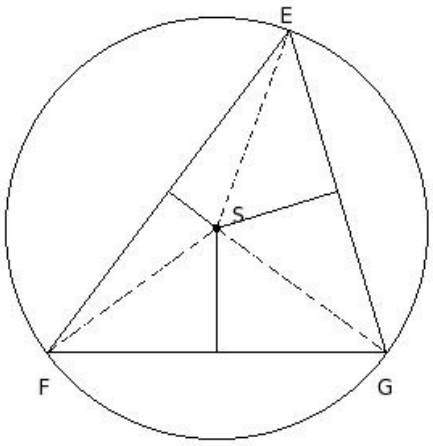
    (i) {d,b} (ii) {c,d,e} (iii) {c,a} (iv) {c,a,b} (v) {a,b,e}

11. Which of the following statements are true?

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

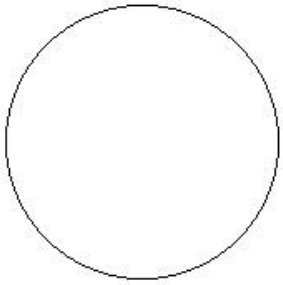
(i) {b,a} (ii) {c,e} (iii) {c,e,a} (iv) {a,e} (v) {d,b,a}

12. In the given triangle S is the circumcentre. If SE = 13.10 cm, find the circumference of the circumcircle



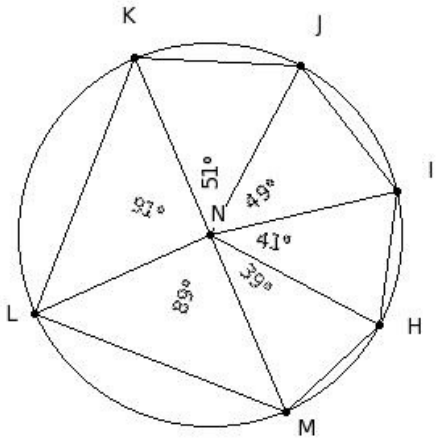
(i) 82.3 cm (ii) 84.3 cm (iii) 83.3 cm (iv) 81.3 cm (v) 80.3 cm

13. Identify the figure below



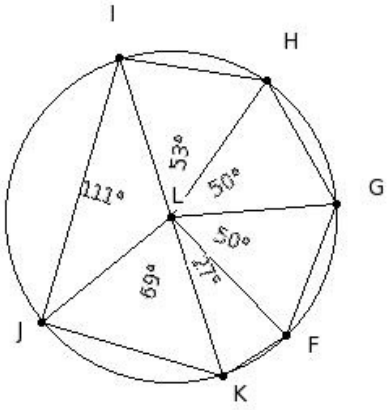
(i) octagon (ii) circle (iii) decagon (iv) hexagon (v) angle

14. The centre of the circle is



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

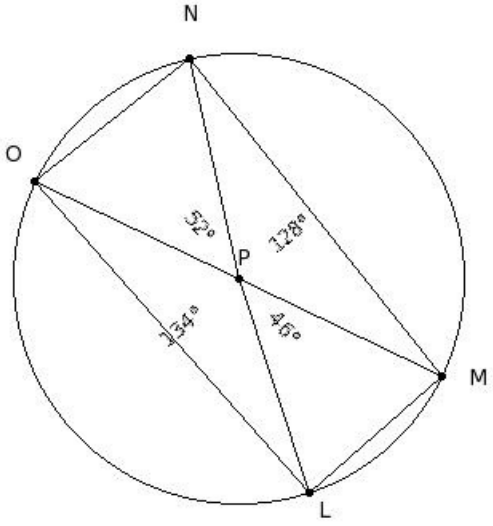
15. The chords of the circle are



(i) $\overline{FG}, \overline{GH}, \overline{HI}, \overline{IJ}, \overline{JK}, \overline{KF}$ (ii) $\overline{FG}, \overline{GH}, \overline{HI}, \overline{IJ}, \overline{JK}, \overline{KF}, \overline{IK}$ (iii) $\overline{LF}, \overline{LG}, \overline{LH}, \overline{LI}, \overline{LJ}, \overline{LK}$

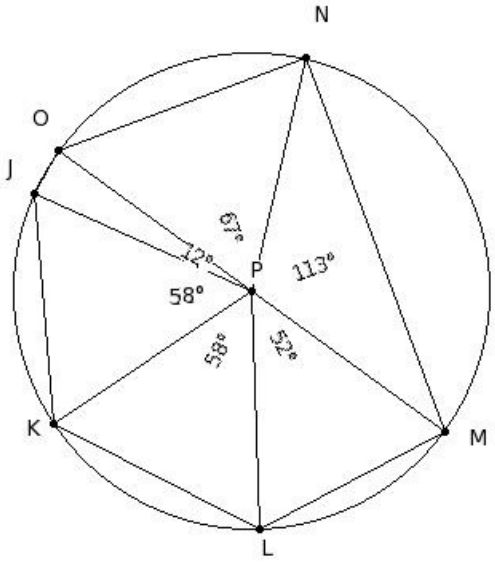
(iv) $\overline{FG}, \overline{GH}, \overline{HI}, \overline{IJ}, \overline{JK}, \overline{KF}, \overline{LF}$ (v) $\overline{GH}, \overline{HI}, \overline{IJ}, \overline{JK}, \overline{KF}$

16. The diameters of the circle are



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

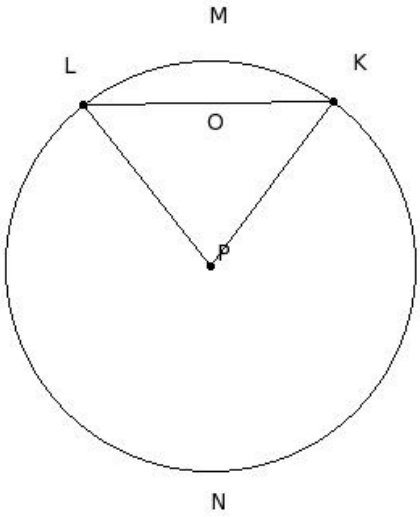
17. The radii of the circle are



(i) $\overline{KL}, \overline{LM}, \overline{MN}, \overline{NO}, \overline{OJ}$ (ii) $\overline{JK}, \overline{KL}, \overline{LM}, \overline{MN}, \overline{NO}, \overline{OJ}, \overline{MO}$ (iii) $\overline{PJ}, \overline{PK}, \overline{PL}, \overline{PM}, \overline{PN}, \overline{PO}$

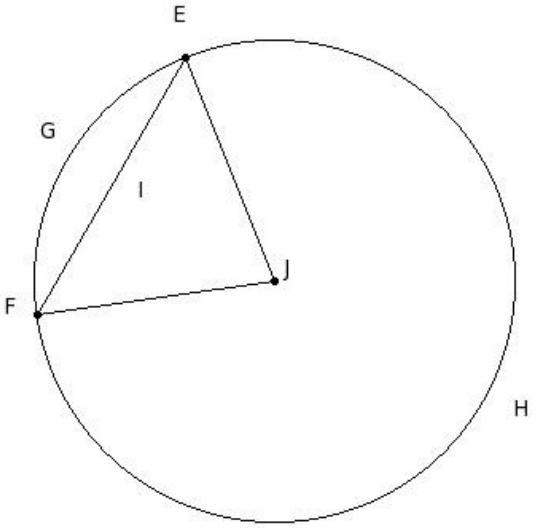
(iv) $\overline{JK}, \overline{KL}, \overline{LM}, \overline{MN}, \overline{NO}, \overline{OJ}$ (v) $\overline{JK}, \overline{KL}, \overline{LM}, \overline{MN}, \overline{NO}, \overline{OJ}, \overline{PK}$

18. The minor sector of the circle is



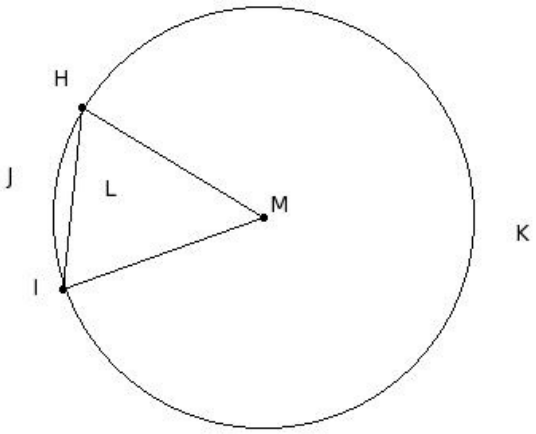
(i) KNL (ii) KMLOK (iii) PKMLP (iv) PKNLP (v) KML

19. The major sector of the circle is



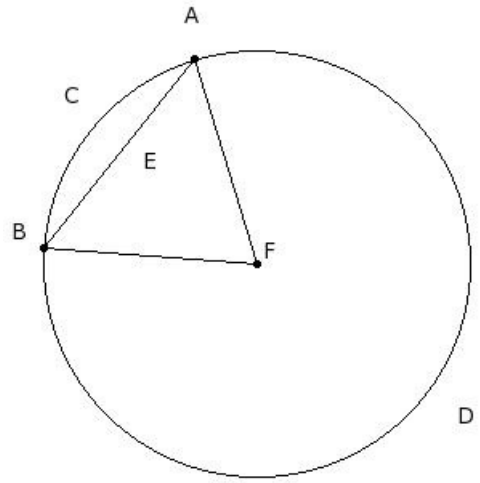
(i) JEGFJ (ii) JEHFJ (iii) EGFIE (iv) EHFIE (v) EHF

20. The minor arc of the circle is



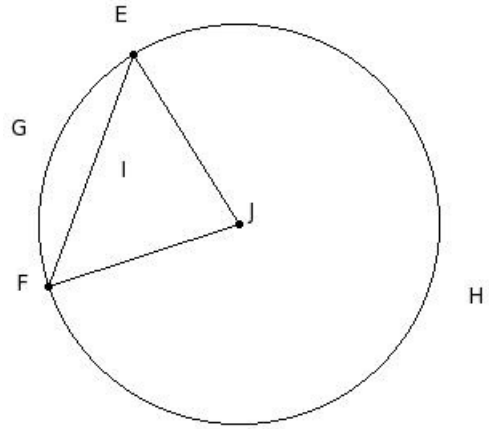
(i) HKILH (ii) HJI (iii) MHJIM (iv) MHKIM (v) HKI

21. The major arc of the circle is



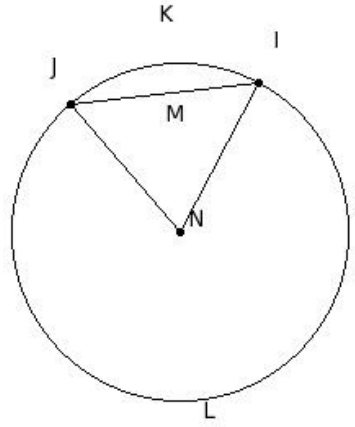
(i) FADBF (ii) ADBEA (iii) ACBEA (iv) ACB (v) ADB

22. The minor segment of the circle is



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

23. The major segment of the circle is



(i) IKJMI (ii) ILJMI (iii) NIKJN (iv) NILJN (v) IKJ

24. The distance around the circle is called

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

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

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

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

(i) radius (ii) tangent (iii) quadrant (iv) semi-circle (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) quadrant (ii) chord (iii) major segment (iv) segment (v) radius

28. Which of the following statements are true?

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

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

29. Which of the following statements are true?

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

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

30. Which of the following statements are true?

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

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

31. Which of the following statements are true?

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

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

32. Which of the following statements are true?

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

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

33. Which of the following statements are true?

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

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

34. Which of the following statements are true?

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

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

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

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

36. IJ , KL , MN , OP are chords of a circle with IJ = 7 cm , KL = 3 cm , MN = 5.3 cm and OP = 6.03 cm. The chord farthest from the centre of the circle is

(i) KL = 3 cm (ii) OP = 6.03 cm (iii) MN = 5.3 cm (iv) IJ = 7 cm

37. Circles having common centre are called

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

38. If two circles are concentric, then

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

(iv) their centres are same

39. Which of the following figures represent a chord ?

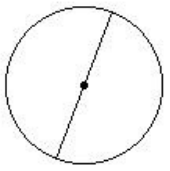


fig I

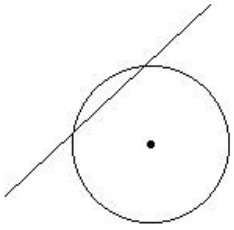


fig II

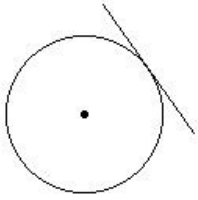


fig III

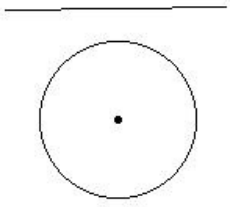


fig IV

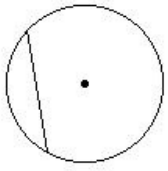


fig V

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

40. Which of the following figures represent a diameter ?

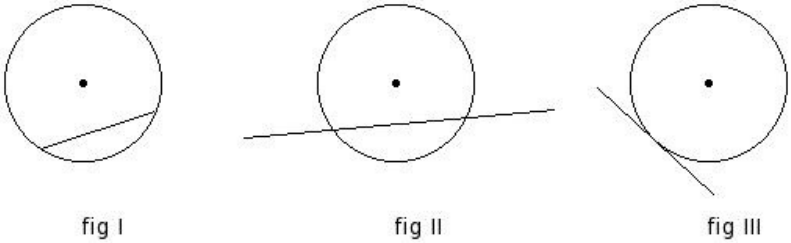


fig I fig II fig III

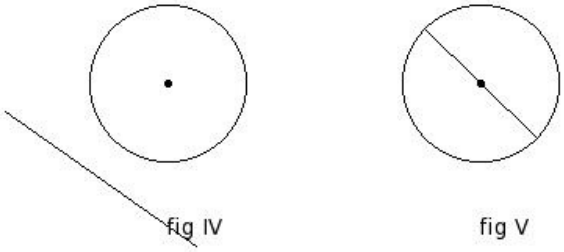


fig IV fig V

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

41. Which of the following figures represent a secant ?

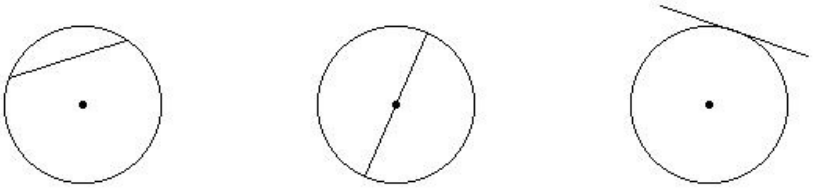


fig I fig II fig III

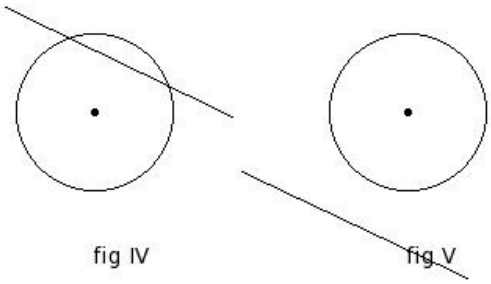


fig IV fig V

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

42. Which of the following figures represent a tangent ?

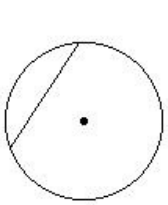


fig I

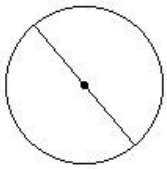


fig II

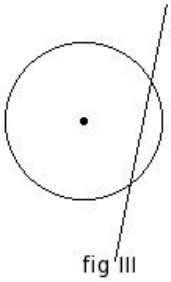


fig III

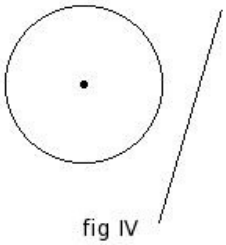


fig IV

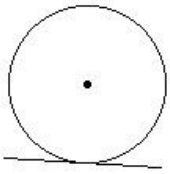


fig V

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

43. Which of the following statements are true?

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

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

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

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

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

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

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

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

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

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

48. Which of the following statements are true?

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

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

49. In triangle FGH, if a circle is drawn with GH as diameter and if it passes through F it is a

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

Assignment Key

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