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

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

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

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

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

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

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

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

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

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

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

7. Half of a circle is called

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

8. The perimeter of a circle is called

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

9. Which of the following statements are true?

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

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

10. Which of the following statements are true?

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

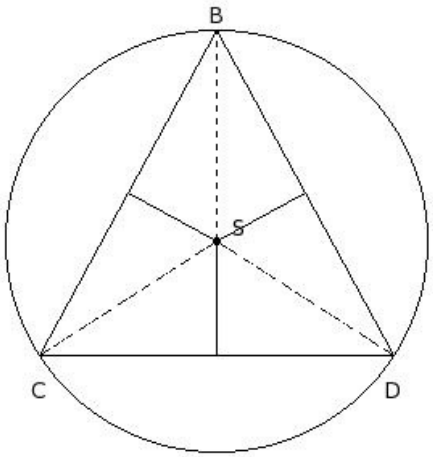
    (i) {a,b,c} (ii) {d,a,b} (iii) {d,a} (iv) {d,e,c} (v) {e,b}

11. Which of the following statements are true?

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

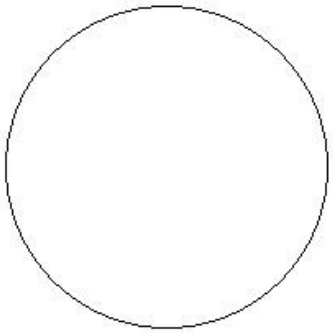
(i) {a,c} (ii) {b,e} (iii) {d,a,c} (iv) {b,e,c} (v) {c,e}

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



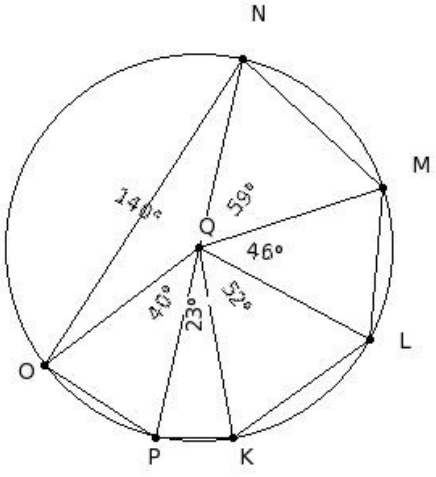
(i) 83.3 cm (ii) 84.3 cm (iii) 80.3 cm (iv) 81.3 cm (v) 82.3 cm

13. Identify the figure below



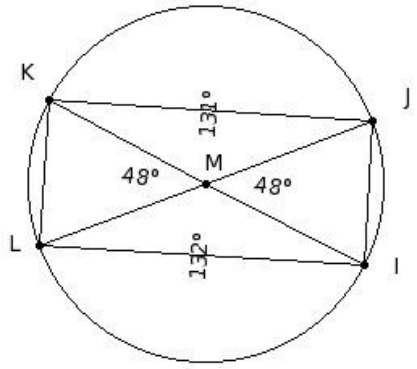
(i) nonagon (ii) heptagon (iii) circle (iv) decagon (v) pentagon

14. The centre of the circle is



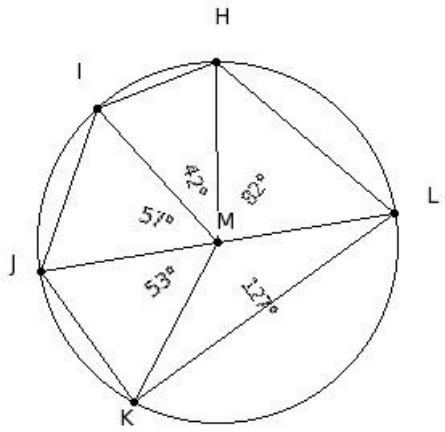
(i) N (ii) K (iii) Q (iv) M (v) L

15. The chords of the circle are



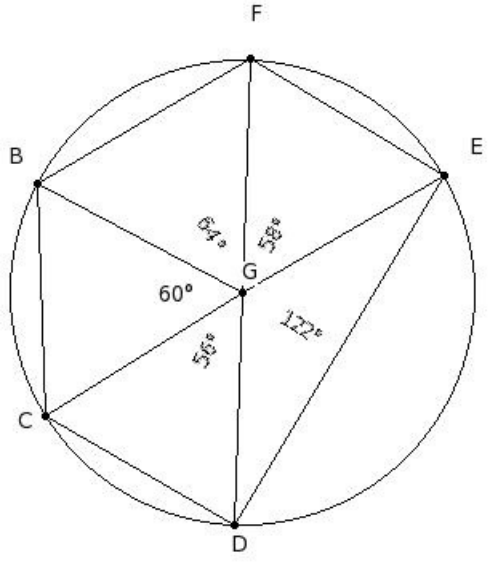
(i) $\overline{IJ}, \overline{JK}, \overline{KL}, \overline{LI}, \overline{ML}$ (ii) $\overline{IJ}, \overline{JK}, \overline{KL}, \overline{LI}$ (iii) $\overline{MI}, \overline{MJ}, \overline{MK}, \overline{ML}$ (iv) $\overline{JK}, \overline{KL}, \overline{LI}$ (v) $\overline{IJ}, \overline{JK}, \overline{KL}, \overline{LI}, \overline{JL}$

16. The diameters of the circle are



(i) $\overline{JL}$ (ii) $\overline{MH}, \overline{MI}, \overline{MJ}, \overline{MK}, \overline{ML}$ (iii) $\overline{HI}, \overline{IJ}, \overline{JK}, \overline{KL}, \overline{LH}, \overline{JL}$ (iv) $\overline{MH}, \overline{MI}, \overline{MJ}, \overline{MK}, \overline{ML}, \overline{JL}$ (v) $\overline{HI}, \overline{IJ}, \overline{JK}, \overline{KL}, \overline{LH}$

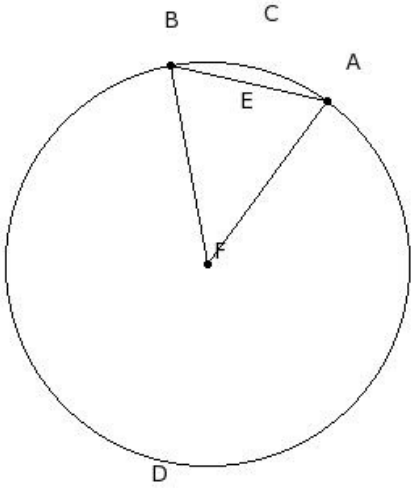
17. The radii of the circle are



(i) $\overline{BC}, \overline{CD}, \overline{DE}, \overline{EF}, \overline{FB}$ (ii) $\overline{GB}, \overline{GC}, \overline{GD}, \overline{GE}, \overline{GF}$ (iii) $\overline{CD}, \overline{DE}, \overline{EF}, \overline{FB}$ (iv) $\overline{BC}, \overline{CD}, \overline{DE}, \overline{EF}, \overline{FB}, \overline{GC}$

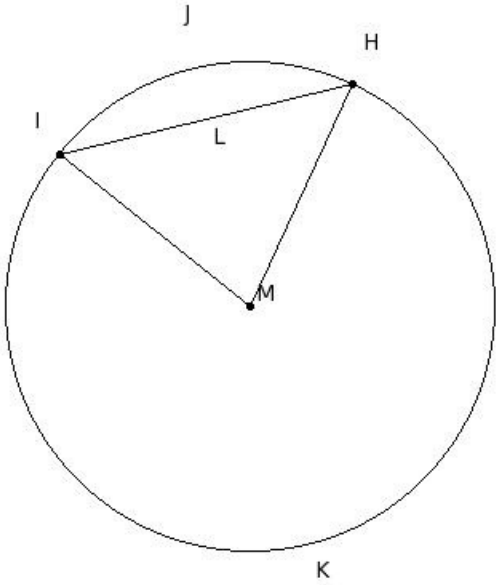
(v) $\overline{BC}, \overline{CD}, \overline{DE}, \overline{EF}, \overline{FB}, \overline{DF}$

18. The minor sector of the circle is



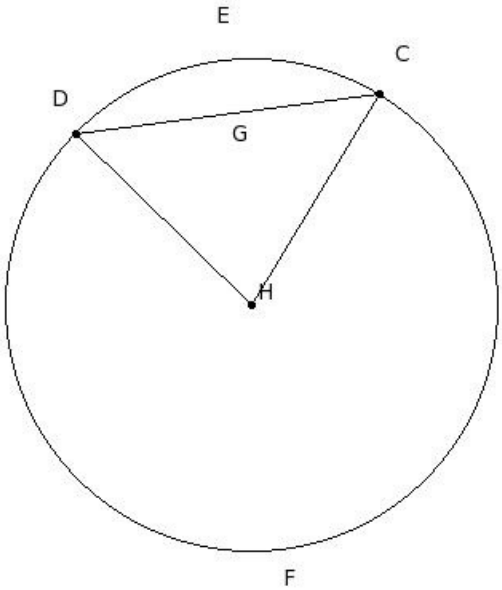
(i) ACBEA (ii) ACB (iii) FACBF (iv) ADBEA (v) ADB

19. The major sector of the circle is



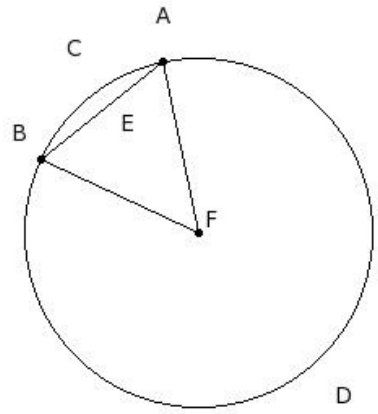
(i) HJILH (ii) MHKIM (iii) MHJIM (iv) HKILH (v) HKI

20. The minor arc of the circle is



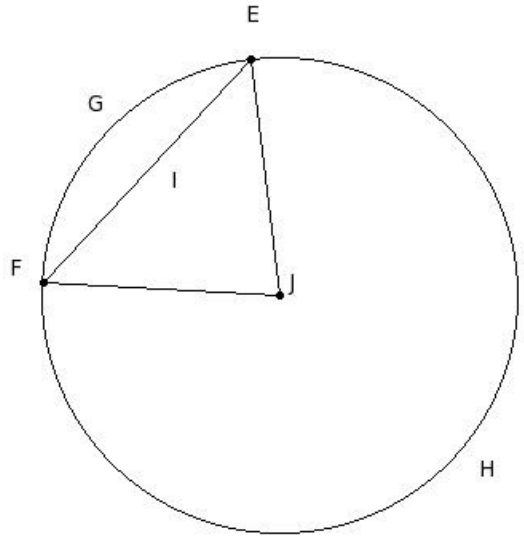
(i) CFD (ii) HCEDH (iii) CEDGC (iv) HCFDH (v) CED

21. The major arc of the circle is



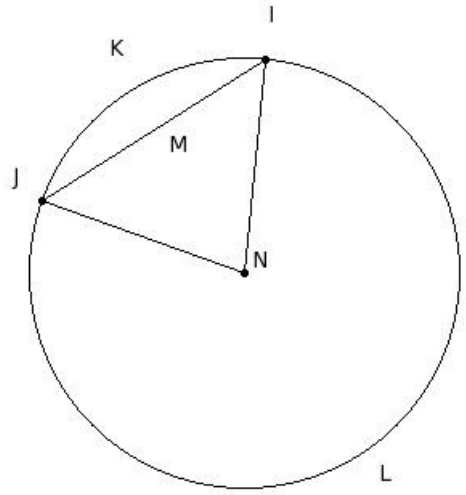
(i) ADB (ii) FACBF (iii) ADBEA (iv) ACBEA (v) FADBF

22. The minor segment of the circle is



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

23. The major segment of the circle is



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

24. The distance around the circle is called

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

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

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

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

(i) radius (ii) circumference (iii) tangent (iv) secant (v) diameter

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

28. Which of the following statements are true?

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

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

29. Which of the following statements are true?

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

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

30. Which of the following statements are true?

a) A circle divides the plane on which it lies into three parts.
b) A sector is the area enclosed by two radii and a chord.
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) {b,d,e} (ii) {a,c,e} (iii) {d,c} (iv) {b,a,c} (v) {b,a}

31. 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) The diameter divides the circle into two unequal parts.
d) Two chords bisect each other.
e) The longest of all chords of a circle is called diameter.

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

32. Which of the following statements are true?

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

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

33. Which of the following statements are true?

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

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

34. Which of the following statements are true?

a) A radius is a limiting case of a diameter.
b) A secant and a chord are same.
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) {a,c} (ii) {c,e} (iii) {d,a,c} (iv) {b,e} (v) {b,e,c}

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

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

36. FG , HI , JK , LM are chords of a circle with FG = 5 cm , HI = 2 cm , JK = 5.4 cm and LM = 4.01 cm. The chord farthest from the centre of the circle is

(i) LM = 4.01 cm (ii) JK = 5.4 cm (iii) FG = 5 cm (iv) HI = 2 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 diameters are same (ii) their radii are same (iii) their centres are same

(iv) their perimeters are same

39. Which of the following figures represent a chord ?

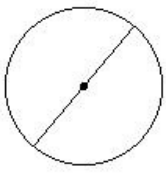


fig I

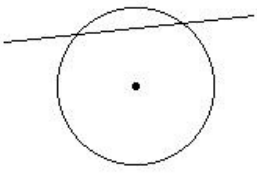


fig II

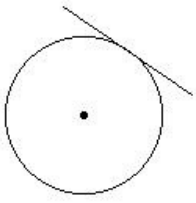


fig III

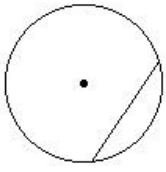


fig IV

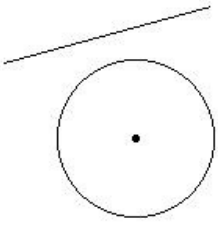


fig V

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

40. Which of the following figures represent a diameter ?

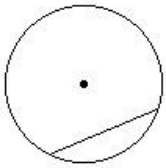


fig I

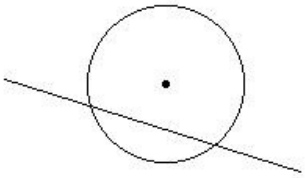


fig II

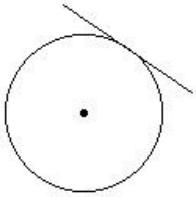


fig III

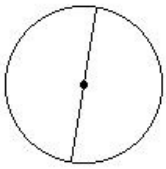


fig IV

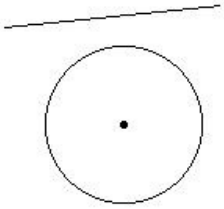


fig V

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

41. Which of the following figures represent a secant ?

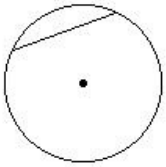


fig I

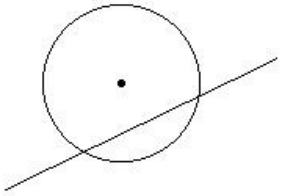


fig II

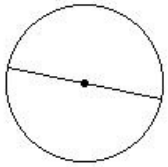


fig III

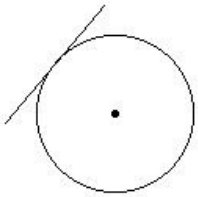


fig IV

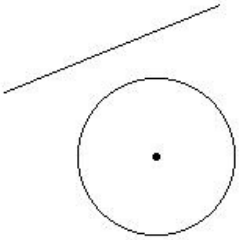


fig V

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

42. Which of the following figures represent a tangent ?

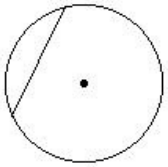


fig I

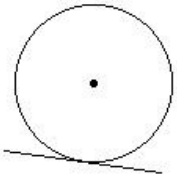


fig II

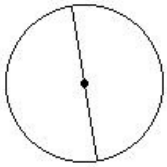


fig III

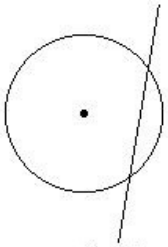


fig IV

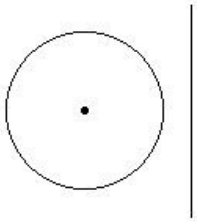


fig V

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

43. Which of the following statements are true?

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

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

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

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

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

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

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

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

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

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

48. Which of the following statements are true?

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

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

49. In triangle CDE, if a circle is drawn with DE as diameter and if it passes through C it is a

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

Assignment Key

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