EduSahara™ Learning Center Assignment

Grade : Class IX, SSC
Chapter : Circles
Name : Circle Basics

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

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

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

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

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

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

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

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

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

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

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

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

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7. Half of a circle is called

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

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8. The perimeter of a circle is called

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

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9. Which of the following statements are true?

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

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

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10. Which of the following statements are true?

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

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

11. Which of the following statements are true?

a) A secant of a circle is a segment having its end points on the circle
b) Diameter of a circle is a part of the semi-circle of 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) Every circle has a unique diameter

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

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12. If the diameter of a circle is 126 cm, what is its radius?

(i) 62 cm (ii) 65 cm (iii) 61 cm (iv) 63 cm (v) 64 cm

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13. If the radius of a circle is 91 cm, what is its diameter?

(i) 183 cm (ii) 184 cm (iii) 180 cm (iv) 181 cm (v) 182 cm

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14. If the radius of a circle is 77 cm, what is its circumference?

(i) 484 cm (ii) 485 cm (iii) 486 cm (iv) 483 cm (v) 482 cm

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15. Two circles with equal radii are

(i) congruent
(ii) concentric
(iii) not similar
(iv) only similar but not congruent

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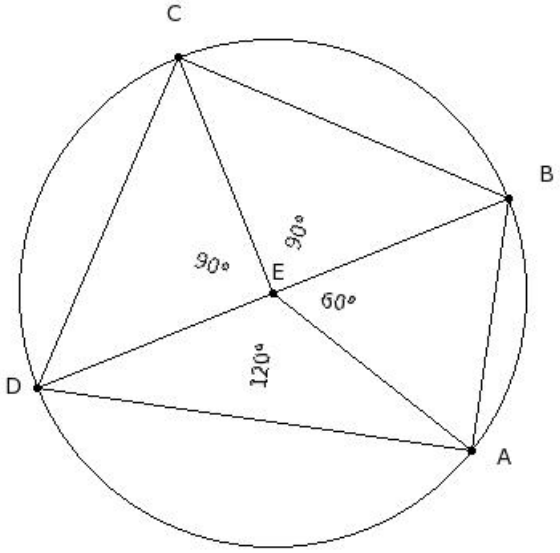
16. The centre of the circle is



(i) B (ii) C (iii) A (iv) D (v) E

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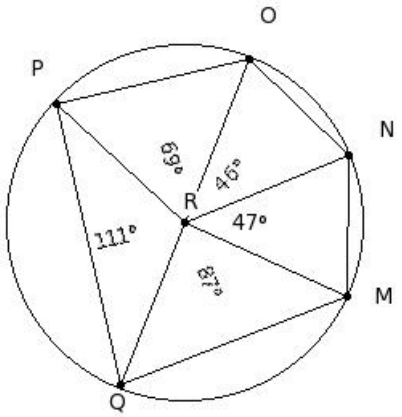
17. The chords of the circle are



(i) $\overline{MN}$, $\overline{NO}$, $\overline{OP}$, $\overline{PQ}$, $\overline{QM}$, $\overline{OQ}$ (ii) $\overline{MN}$, $\overline{NO}$, $\overline{OP}$, $\overline{PQ}$, $\overline{QM}$, $\overline{RO}$

(iii) $\overline{RM}$, $\overline{RN}$, $\overline{RO}$, $\overline{RP}$, $\overline{RQ}$ (iv) $\overline{MN}$, $\overline{NO}$, $\overline{OP}$, $\overline{PQ}$, $\overline{QM}$

(v) $\overline{NO}$, $\overline{OP}$, $\overline{PQ}$, $\overline{QM}$

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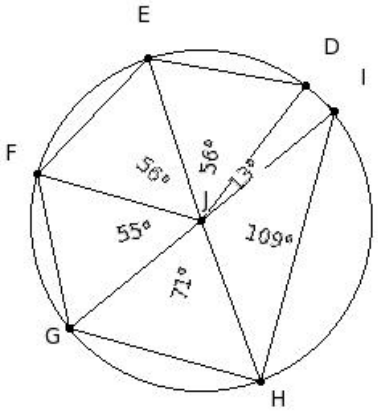
18. The diameters of the circle are



(i) $\overline{DE}$, $\overline{EF}$, $\overline{FG}$, $\overline{GH}$, $\overline{HI}$, $\overline{ID}$, $\overline{GI}$ (ii) $\overline{JD}$, $\overline{JE}$, $\overline{JF}$, $\overline{JG}$, $\overline{JH}$, $\overline{JI}$, $\overline{GI}$

(iii) $\overline{JD}$, $\overline{JE}$, $\overline{JF}$, $\overline{JG}$, $\overline{JH}$, $\overline{JI}$ (iv) $\overline{DE}$, $\overline{EF}$, $\overline{FG}$, $\overline{GH}$, $\overline{HI}$, $\overline{ID}$

(v) $\overline{GI}$

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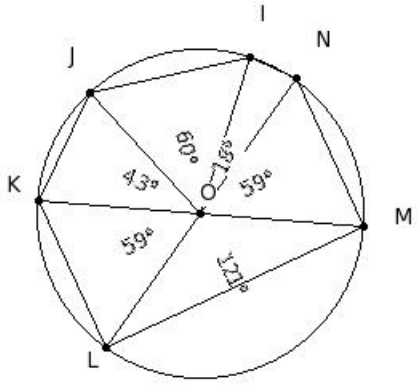
19. The radii of the circle are



(i) $\overline{IJ}, \overline{JK}, \overline{KL}, \overline{LM}, \overline{MN}, \overline{NI}, \overline{KM}$ (ii) $\overline{OI}, \overline{OJ}, \overline{OK}, \overline{OL}, \overline{OM}, \overline{ON}$

(iii) $\overline{JK}, \overline{KL}, \overline{LM}, \overline{MN}, \overline{NI}$ (iv) $\overline{IJ}, \overline{JK}, \overline{KL}, \overline{LM}, \overline{MN}, \overline{NI}, \overline{OM}$

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

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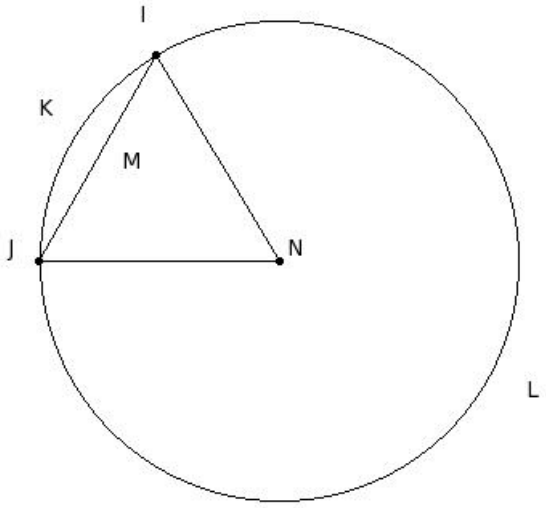
20. The minor sector of the circle is



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

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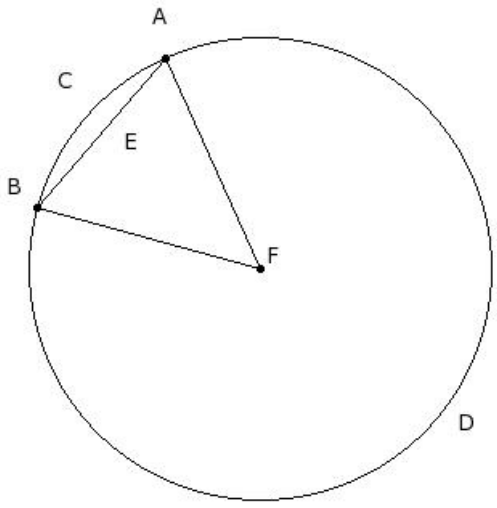
21. The major sector of the circle is



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

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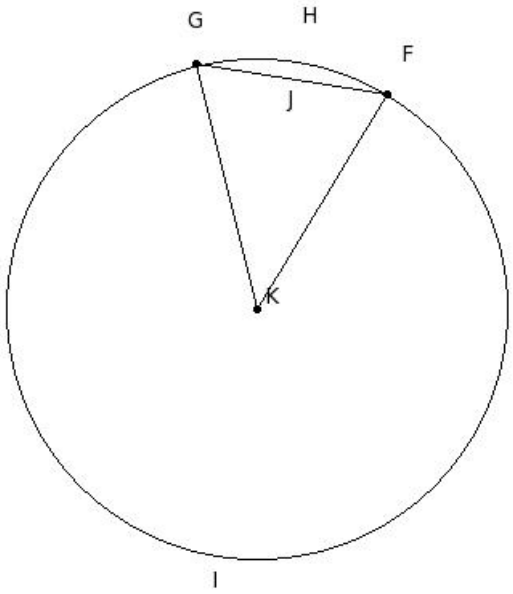
22. The minor arc of the circle is



(i) FHGJF (ii) FIGJF (iii) FHG (iv) KFHGK (v) KFIGK

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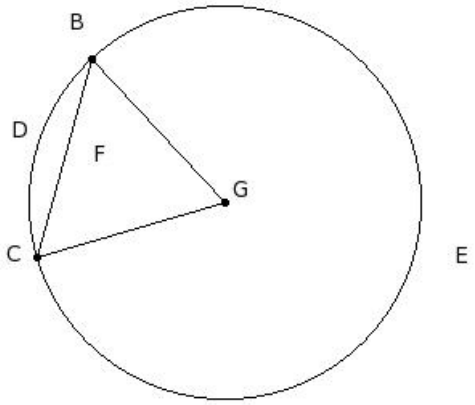
23. The major arc of the circle is



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

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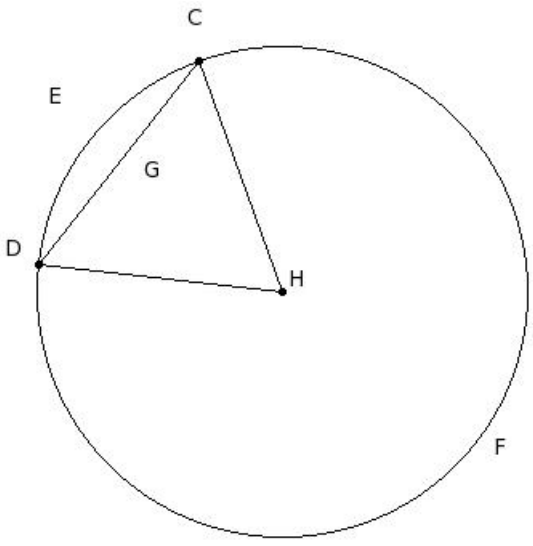
24. The minor segment of the circle is



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

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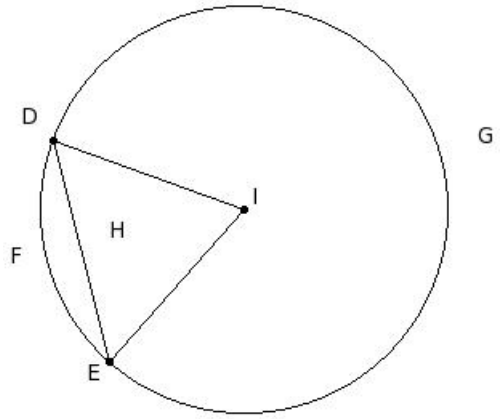
25. The major segment of the circle is



(i) DFEHD (ii) DGEHD (iii) IDGEI (iv) DGE (v) IDFEI

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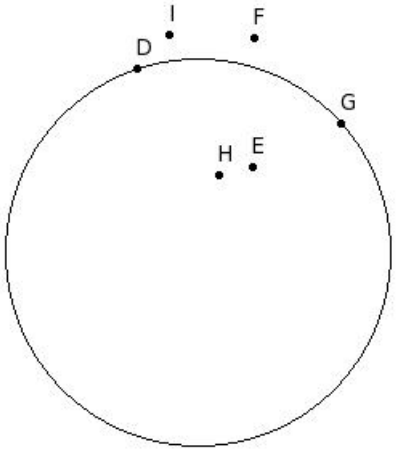
26. Find the points belonging to the circle



(i) {E,D} (ii) {F,I} (iii) {E,H} (iv) {D,G} (v) {I,G}

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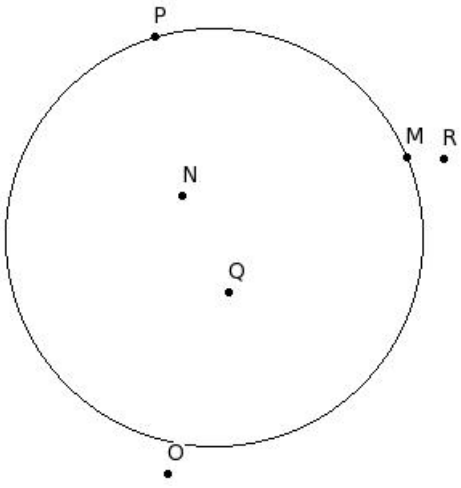
27. Find the points belonging to the inside of the circle



(i) {O,R} (ii) {M,P} (iii) {N,Q} (iv) {Q,M} (v) {O,Q}

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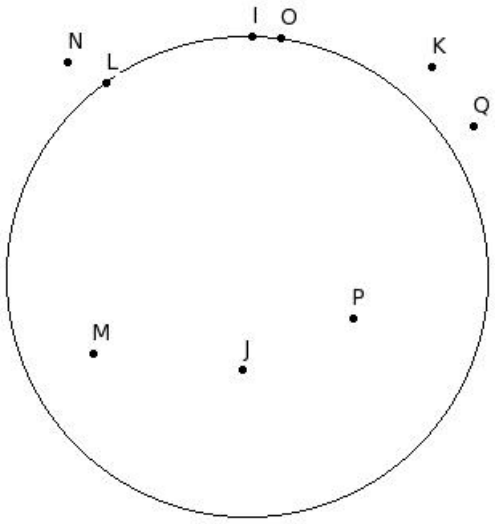
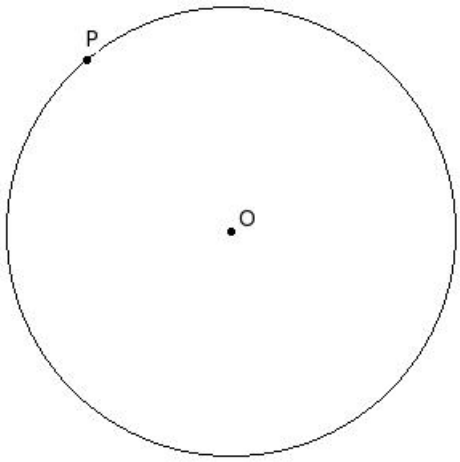
28. Find the points belonging to the outside of the circle



(i) {J,M,P} (ii) {P,Q,N} (iii) {K,L,Q} (iv) {I,L,O} (v) {K,N,Q}

'O' is the centre of a circle of radius 'r' and 'P' is any point in its plane.

29. If $\overline{OP}$ = r ,then P is



(i) outside the circle (ii) on the circle (iii) inside the circle

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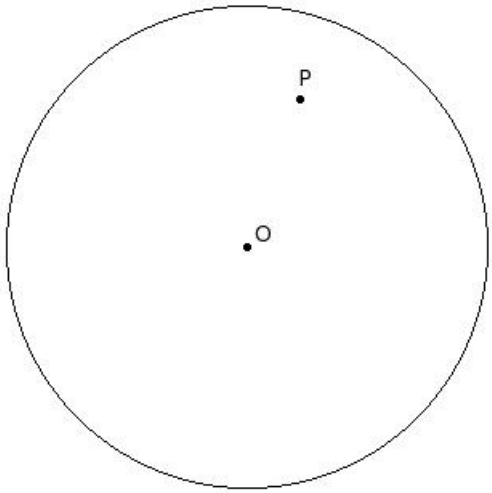
'O' is the centre of a circle of radius 'r' and 'P' is any point in its plane.

30. If $\overline{OP}$ < r,then P is

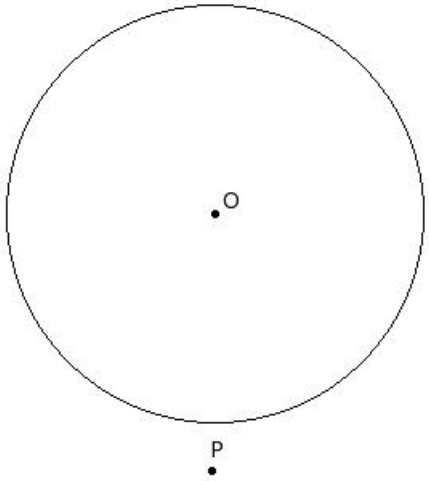


(i) on the circle (ii) outside the circle (iii) inside the circle

---

'O' is the centre of a circle of radius 'r' and 'P' is any point in its plane.

31. If $\overline{OP}$ > r,then P is



(i) inside the circle (ii) on the circle (iii) outside the circle

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32. The distance around the circle is called

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

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

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

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

(i) semi-circle (ii) tangent (iii) radius (iv) circumference (v) centre

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35. 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) secant (ii) segment (iii) tangent (iv) quadrant (v) major segment

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36. Which of the following statements are true?

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

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

---

37. Which of the following statements are true?

a) Equal length chords are equidistant from 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) The longest chord of the circle passes through the centre of the circle
e) Equal length chords subtend equal angles at the centre of the circle

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

---

38. 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) A circle divides the plane on which it lies into three parts
e) The area enclosed by a chord and its minor arc is called minor segment

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

---

39. 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 longest of all chords of a circle is called diameter
e) The diameter divides the circle into two unequal parts

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

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40. Which of the following statements are true?

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

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

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

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

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

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

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43. Circles having common centre are called

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

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44. If two circles are concentric, then

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

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45. Which of the following figures represent a chord ?

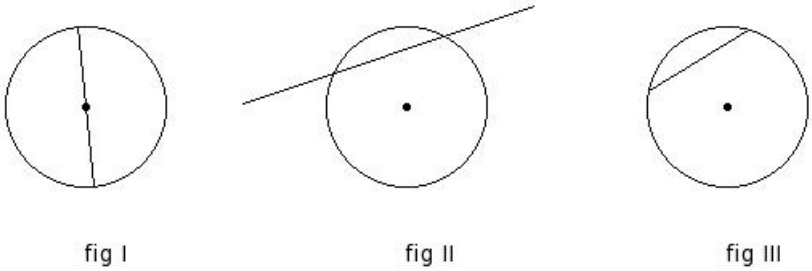

fig I fig II fig III

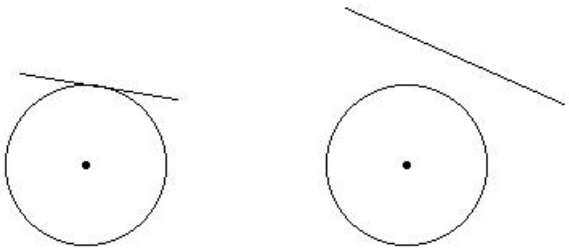

fig IV fig V

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

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46. Which of the following figures represent a diameter ?

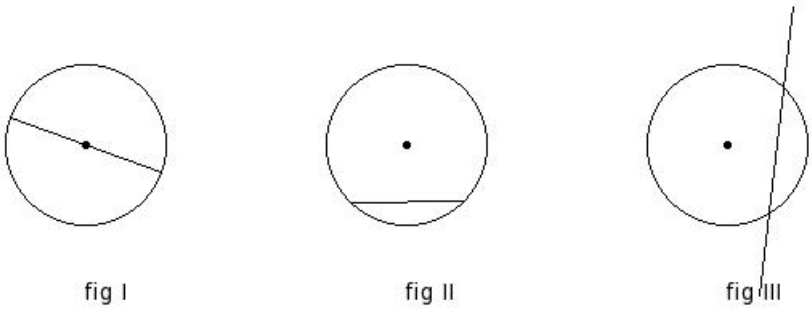

fig I fig II fig III

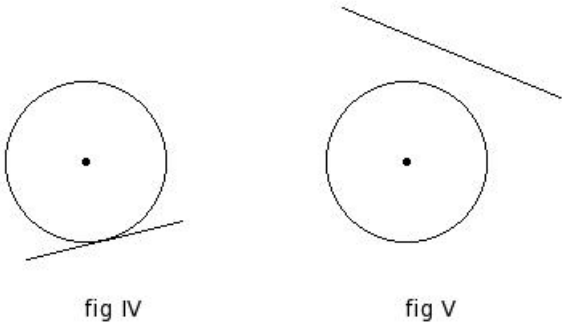

fig IV fig V

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

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47. Which of the following figures represent a secant ?

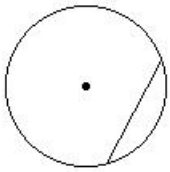

fig I

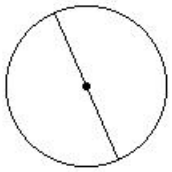

fig II

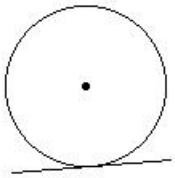

fig III

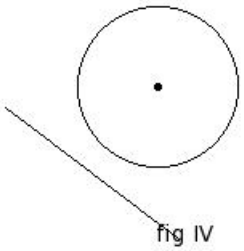

fig IV

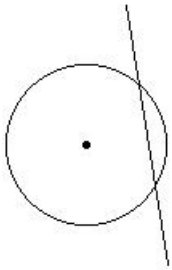

fig V

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

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48. Which of the following figures represent a tangent ?

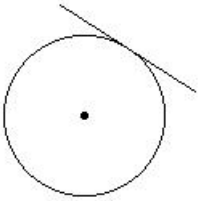

fig I

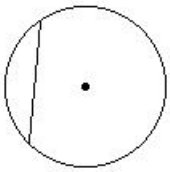

fig II

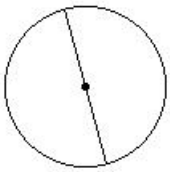

fig III

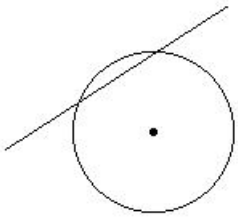

fig IV

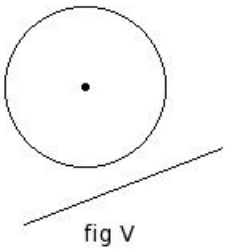

fig V

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

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49. In triangle DEF, if a circle is drawn with EF as diameter and if it passes through D it is a

(i) right angle triangle

(ii) acute angled triangle

(iii) equilateral triangle

(iv) obtuse angled triangle

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50. Which of the following statements are true?

a) All chords of a circle are diameters

b) All diameters of a circle are chords

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

d) π is a rational number

e) $\frac{22}{7}$ is a rational number

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

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

(i) Coincident points

(ii) Cyclic points

(iii) Concyclic points

(iv) Similar points

(v) Concurrent points

Assignment Key

1) (ii)
2) (ii)
3) (ii)
4) (iv)
5) (iii)
6) (i)
7) (v)
8) (ii)
9) (iv)
10) (iii)
11) (iv)
12) (iv)
13) (v)
14) (i)
15) (i)
16) (v)
17) (iv)
18) (v)
19) (ii)
20) (ii)
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27) (iii)
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29) (ii)
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41) (iv)
42) (iii)
43) (ii)
44) (i)
45) (iii)
46) (iii)
47) (v)
48) (ii)
49) (i)
50) (iii)
51) (iii)