Mathematics -Class 6

**Basic Geometrical Ideas**

1. How many points are enough to fix a line?

(A) 1 (B) 2 (C) 3 (D) 4

Answer: (B)

2. Two intersecting lines intersect in

(A) 1 point (B) 2 points (C) 3 points (D) 4 points

Answer: (A)

3. How many lines can pass through one given point?

(A) 1 (B) 2 (C) 4 (D) Countless

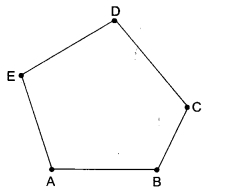
Answer: (D)

4. How many lines can pass through two given points?

(A) Only one (B) 2 (C) 4 (D) Countless

Answer: (A)

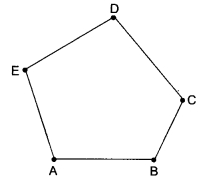
5. How many vertices are there in the following figure?



(A) 5 (B) 3 (C) 2 (D) 4

Answer: (A)

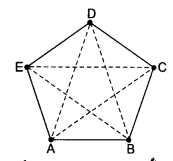
6. How many sides are there in the following figure?



(A) 5 (B) 4 (C) 2 (D) 3

Answer: (A)

7. How many diagonals are there in the follow-ing figure?



(A) 4 (B) 5 (C) 2 (D) 3

Answer: (B)

8. How many vertices are there in a triangle?

(A) 1 (B) 2 (C) 3 (D) 4

Answer: (C)

9. How many sides are there in a triangle?

(A) 1 (B) 2 (C) 3 (D) 4

Answer: (C)

10. How many angles are there in a triangle?

(A) 1 (B) 2 (C) 3 (D) 4

Answer: (C)

11. How many vertices are there in a quadrilat¬eral?

(A) 1 (B) 2 (C) 3 (D) 4

Answer: (D)

12. How many sides are there in a quadrilateral?

(A) 1 (B) 2 (C) 3 (D) 4

Answer: (D)

13. How many angles are there in a quadrilateral?

(A) 1 (B) 2 (C) 3 (D) 4

Answer: (D)

14. How many pairs of adjacent sides are there in a quadrilateral?

(A) 1 (B) 2 (C) 3 (D) 4

Answer: (D)

15. How many pairs of opposite angles are there in a quadrilateral?

(A) 1 (B) 2 (C) 3 (D) 4

Answer: (B)

16. How many pairs of opposite sides are there in a quadrilateral?

(A) 1 (B) 2 (C) 3 (D) 4

Answer: (B)

17. How many pairs of adjacent angles are there in a quadrilateral?

(A) 1 (B) 2 (C) 3 (D) 4

Answer: (D)

18. Which of the following statements is false?

(A) Two diameters of a circle will necessarily intersect.

(B) The centre of a circle is always in its interior.

(C) Every diameter of a circle is also a chord.

(D) Every chord of a circle is also a diameter.

Answer: (D)

19. A triangle has:

(A) one element (B) two elements (C) 6 elements (D) none of these

Answer: (C)

20. A point where three or more lines meet is called:

(A) point of concurrence (B) meeting point

(C) collinear point (D) non-collinear point

Answer: (A)

21. What are used to represent points?

(A) Numerals. (B) Capital letters of alphabet.

(C) Lower case letters of alphabet. (D) All of the above

Answer: (B)

22. Which instrument is used to compare two line segments?

(A) Compasses (B) A divider (C) Set squares (D) A protractor

Answer: (B)

23. A \_\_\_\_\_\_\_\_\_\_ of a circle is a line segment joining any two points on the circle.

(A) chord (B) diameter (C) radius (D) None of these

Answer: (A)

24. A quadrilateral has:

(A) one vertex (B) two vertices (C) three vertices (D) four vertices

Answer: (D)

25. The meeting point of a pair of adjacent sides of a polygon is called its:

(A) vertex (B) diagonal (C) adjacent angles (D) none of these

Answer: (A)

26. An angle is made up of two \_\_\_\_\_\_\_\_ starting from common end point.

(A) rays (B) vertices (C) lines (D) points

Answer: (A)

27. If two lines intersects each other then the common point between them is known as point of \_\_\_\_\_\_\_\_\_.

(A) concurrence (B) intersection (C) vertex (D) contact

Answer: (B)

28. What is a set of points extending infinitely in all directions on the same flat surface called?

(A) A line (B) A plane (C) Ray (D) A point

Answer: (B)

29. A quadrilateral has:

(A) one diagonal (B) two diagonals (C) three diagonals (D) four diagonals

Answer: (B)

30. Three or more points are collinear if they lie on the:

(A) same line (B) two lines (C) same surface (D) none of these

Answer: (A)

31. Flat surface in which two points are joined by using straight line is classified as

(A) line (B) plane (C) ray (D) intersecting line

Answer: (B)

32. What is the number of end points of a line?

(A) Zero (B) Two (C) One (D) Three

Answer: (A)

33. Angle which is less than 90° is called

(A) reflex angle (B) obtuse angle (C) acute angle (D) right angle

Answer: (C)

34. The maximum number of points of intersection of three lines is:

(A) one (B) two (C) three (D) four

Answer: (C)

35. A polygon having four sides is called:

(A) triangle (B) quadrilateral (C) circle (D) none of these

Answer: (B)

36. The centre of a circle:

(A) lies in its interior (B) lies in its exterior

(C) lies on the circle (D) none of these

Answer: (A)

37. Any line segment can be formed by joining

(A) two points (B) three points

(C) four points (D) more than three points

Answer: (A)

38. Angle which is equal to 90° is classified as

(A) right angle (B) obtuse angle (C) acute angle (D) reflex angle

Answer: (A)

39. A triangle has:

(A) one vertex (B) two vertices (C) three vertices (D) none of these

Answer: (C)

40. A ray has:

(A) one end point (B) two end points

(C) three end points (D) none of these

Answer: (A)

41. Out of following, one angle which is obtuse is

(A) of a right angle (B) of a complete rotation

(C) of a complete rotation (D) of a right angle

Answer: (B)

42. Two lines meeting at a point are called \_\_\_\_\_\_\_\_\_\_\_ .

(A) intersecting lines (B) concurrent lines (C) parallel line (D) None of these

Answer: (A)

43. A triangle has:

(A) one median (B) two medians (C) three medians (D) four medians

Answer: (C)

44. A quadrilateral is a polygon having:

(A) two sides (B) three sides (C) four sides (D) none of these

Answer: (C)

45. Two distinct lines meeting at a points are called \_\_\_\_\_\_\_\_\_\_\_\_\_.

(A) intersecting lines (B) parallel lines (C) collinear lines (D) None of these

Answer: (A)

46. Out of following options, two angles that are together classified as complementary angles are

(A) 120° and 60° (B) 50° and 30° (C) 65° and 25° (D) 70° and 30°

Answer: (C)

47. A triangle has:

(A) one side (B) two sides (C) three sides (D) four sides

Answer: (C)

48. A circle is a:

(A) polygon (B) an open curve (C) a closed curve (D) none of these

Answer: (C)

49. If two angles are said to be supplementary angles and one of angle is of 122° then other angle is of

(A) 35° (B) 32° (C) 60° (D) 58°

Answer: (D)

50. How many lines pass through two given points?

(A) one (B) two (C) three (D) many

Answer: (A)

51. The minimum number of points of intersection of three lines is:

(A) zero (B) one (C) two (D) three

Answer: (A)

52. A line has:

(A) fixed length (B) infinite length (C) 100 cm length (D) none of these

Answer: (B)

53. Two non-parallel lines always intersect:

(A) in a line (B) in a point (C) in two lines (D) none of these

Answer: (B)

54. Angle which is less than 360° and larger than 180° is classified as

(A) acute angle (B) obtuse angle (C) reflex angle (D) right angle

Answer: (C)

55. Three or more points lying on the same line are known as \_\_\_\_\_\_\_\_\_\_\_ points.

(A) collinear (B) intersecting (C) non-collinear (D) None of these

Answer: (A)

56. Through one given point:

(A) one line can be drawn (B) two lines can be drawn

(C) many lines can be drawn (D) none of these

Answer: (C)

57. A point has:

(A) infinite length (B) 1 mm length (C) no length (D) all of these

Answer: (C)

58. How many lines pass through one given point?

(A) Three (B) One (C) Countless (D) Two

Answer: (C)

59. What is a set of points which extend infinitely in both directions called?

(A) A line (B) A plane (C) A line segment (D) A point

Answer: (A)

60. A quadrilateral has:

(A) one side (B) two sides (C) three sides (D) four sides

Answer: (D)

61. An angle has:

(A) one vertex and one arm (B) one vertex and two. arms

(C) two vertices and two arms (D) none of these

Answer: (B)

62. A flat surface which extends indefinitely in all directions is called \_\_\_\_\_\_\_\_\_\_\_ .

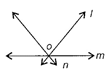
(A) plane (B) lines (C) point (D) line segment

Answer: (A)

63. A pair of lines which do not intersect at any point are called \_\_\_\_\_\_\_\_\_ lines.

A) Perpendicular B) Parallel C) Concurrent D) Intersecting

Answer: B

64. A line segment passing through the centre of circle and whose end points lie on the circle is called \_\_\_\_\_\_\_.

A) Diameter B) Radius C) Sector D)None of these

Answer: A

65. In the given figure, lines l, m and n are called \_\_\_\_\_\_\_\_ lines.

A) Collinear B) Parallel C) Concurrent D) Transversal

Answer: C

66.A part of a circle is called the \_\_\_\_\_\_\_\_ of the circle.

A) Point B) Line segment C) Arc D) None of these

Answer: C

67. The basic elements of a quadrilateral are

A) 4 vertices B) 4 sides C) 4 angles D) All of these

Answer: D

68. Which of the following statements is INCORRECT?

A) Line is same as line

B) Line segment is same as line segment

C) Ray is the same as ray

D) AB perpendicular to CD is same as CD perpendicular to AB.

Answer: C

69. The diameter of a circle divides it into \_\_\_\_\_\_\_ parts.

A) 2 B) 3 C) 4 D)1

Answer: A

70. In the given figure, there are \_\_\_\_\_\_ angles.

A) 4 B) 8 C) 6 D) 10

Answer: B

71. The region bounded by chord and minor arc is called \_\_\_\_\_\_\_\_.

A) Minor segment B) Major arc C) Major segment D) Semicircle

Answer: A

72. If the sum of two angles is greater than1800 , then which of the following is not possible for the two angles?

A) One obtuse angle and one acute angle

B) One reflex angle and one acute angle

C) Two obtuse angles

D) Two right angles

Answer: D

73. Three or more lines are \_\_\_\_\_\_, if they pass through a common point.

A) Parallel B) Collinear C) Concurrent D) All of these

Answer: C

74. Set of points extending infinitely in all directions on the same flat surface is \_\_\_\_\_\_\_\_.

A) Line B) Plane C) Line segment D) Point

Answer: B

75. The surface of a football is \_\_\_\_\_ surface.

A) Curved B) Flat C) Triangular D) Can't be determined

Answer: A



76. How many line segments are there in the given figure?

A) 3 B) 5 C) 2 D) 4

Answer: B

77 A cuboidal box has \_\_\_\_\_\_ edges representing the portions of lines.

A) 14 B) 8 C) 12 D) 16

Answer: C

78. A set of points which extends infinitely in both the directions is called \_\_\_\_\_\_\_.

A) Line B) Plane C) Point D) Line segment

Answer: A

79. The number of arcs made by a chord on a circle is \_\_\_\_\_\_\_.

A) 3 B) 2 C) 1 D) 4

Answer: B

80. How many maximum number of lines can be drawn through one point?

A) One B) Two C) Zero D) Infinite

Answer: D

81. What type of angle is angle X?

A) Acute B) Obtuse C) Right D) Straight

Answer: C

82. The total boundary length of circle is called

A) Area B) Volume C) Circumference D) Diameter

Answer: C

83. Classify the following into open and closed curves.

|  |  |
| --- | --- |
| (A) | (p) |
| (B) | (q) |
| (C) | (r) |

A)

|  |  |
| --- | --- |
| Open | Closed |
| (b, p, r) | (a, c, q) |

B)

|  |  |
| --- | --- |
| Open | Closed |
| (b, q, c) | (a, p, r) |

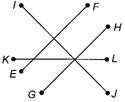
C)

|  |  |
| --- | --- |
| Open | Closed |
| (p, q, a) | (r, c, b) |

D)

|  |  |
| --- | --- |
| Open | Closed |
| (r, b, a) | (p, q, c) |

Answer: A

85. Raghav drew the line segments shown here on a piece of paper. Which of the following pairs of line segments appears to be perpendicular?

A) and  B) and 

C) and  D) and 

Answer:

86. Number of line segments in figure is 

A) 5 B) 10 C) 15 D) 20

Answer: B

87. The polygon which is made up of least number of sides is a \_\_\_\_\_\_\_\_\_\_\_.

A) Square B) Triangle C) Rectangle D) None of these

Answer: B

88. How many lines can be drawn to pass through two points simultaneously?

A) One B) Two C) More than three D) No line

Answer: A

89. Fill in the blanks. Any drawing (straight or non-straight) done without lifting the pencil may be a   P . A  Q   is the one that does not cross itself. A curve is said to be   R   . if its ends are joined. A   S   is a simple closed curve made up of line segments.

A)

|  |  |  |  |
| --- | --- | --- | --- |
| P | Q | R | S |
| Curve | Open curve | Closed | Line |

B)

|  |  |  |  |
| --- | --- | --- | --- |
| P | Q | R | S |
| Line | Curve | Open | Line |

C)

|  |  |  |  |
| --- | --- | --- | --- |
| P | Q | R | S |
| Curve | Simple curve | Closed | Polygon |

D)

|  |  |  |  |
| --- | --- | --- | --- |
| P | Q | R | S |
| Curve | Closed curve | Open | Circle |

Answer: C

90. Which of the following statements is CORRECT?

(i) A sector is the region in the interior of a circle enclosed by an arc on one side and a pair of radii on the other two sides.

(ii) A segment of a circle is region in the interior of the circle enclosed by an arc and a chord.

A) Both (i) & (ii) B) Only (i) C) Only (ii) D) Neither (i) nor (ii)

Answer: A

91. State T for true and 'F' for false.

|  |
| --- |
| (A) Two distinct lines meeting at a point are called concurrent lines. |
| (B) The centre of a circle is always in its interior. |
| (C) A line has no end points. |

A)

|  |  |  |
| --- | --- | --- |
| (A) | (B) | (C) |
| F | T | F |

B)

|  |  |  |
| --- | --- | --- |
| (A) | (B) | (C) |
| F | T | T |

C)

|  |  |  |
| --- | --- | --- |
| (A) | (B) | (C) |
| T | F | F |

D)

|  |  |  |
| --- | --- | --- |
| (A) | (B) | (C) |
| T | T | T |

Answer: D

92. Fill in the blanks. AP is the path of a point moving at the same distance from a fixed point. The fixed point is the Q, the fixed distance is the R and the distance around the circle is the S.

A)

|  |  |  |  |
| --- | --- | --- | --- |
| P | Q | R | S |
| Circle | Circumference | Centre | Radius |

B)

|  |  |  |  |
| --- | --- | --- | --- |
| P | Q | R | S |
| Circle | Centre | Radius | Circumference |

C)

|  |  |  |  |
| --- | --- | --- | --- |
| P | Q | R | S |
| Circle | Radius | Centre | Circumference |

D)

|  |  |  |  |
| --- | --- | --- | --- |
| P | Q | R | S |
| Circle | Circumference | Radius | Centre |

Answer: B

93. In the given circle, which of the following statements is INCORRECT?

A) AB is the diameter. B) LQN is the minor segment

C) M is the centre of the circle. D) ADB is the semicircle.

Answer: C

94. What is the simplest of all geometrical figures which has no size but has a position?

A) A line B) A line segment

C) A point D) A plane

Answer: C

95. What is a set of points which extend infinitely in both directions called?

A) A line B) A plane C) A line segment D) A point

Answer: A

96. Name the set of points which is a part of a line with two end points.

A) A line B) A line segment C) A ray D) A point

Answer: B

97. How is a line PQ symbolically written?

A)  B)  C)  D) 

Answer: B

98 .How do you write a line segment AB symbolically?

A)  B)  C)  D) AB

Answer: A

99. What is the symbolic representation of a ray OP?

A)  B)  C)  D) OP

Answer: C

100. What are used to represent points?

A) Numerals. B) Capital letters of alphabet.

C) Lower case letters of alphabet. D) All of the above

Answer: B