MATHS

BOOKS - RS AGGARWAL MATHS (HINGLISH)

CIRCLES

Exercise 18

1. Take a point O on your notebook and draw circles of radii 4 cm, 5.3 cm and 6.2 cm, each

having the same centre O.

2. Draw a circle with centre C and radius 4.5 cm. Marks points P, Q, R such that P lies in the interior of the circle, Q lies on the circle, and R lies in the exterior of the circle.

3. Draw a circle with centre O and radius 4 cm. Draw a chord AB of the circle. Indicate by marking points X and Y, the minor are AXB and the major are AYB of the circle.

4. (i) Which of the following statements are true and which are false?

Each radius of a circle is also a chord of the circle.

(ii) Which of the following statements are true and which are false?

Each diameter of a circle is also a chord of the circle.

(iii) Which of the following statements are true and which are false?

The centre of a circle bisects each chord of the circle.

(iv) Which of the following statements are true and which are false?

A secant of a circle is a segment having its end points on the circle.

(v) Which of the following statements are true

and which are false?

A chord of a circle is a segment having its end points on the circle.

5. Draw a circle with centre O and radius 3.7 cm. Draw a sector having the angle $72°$.

Exercise 18 Fill In The Blanks By Using

1. OP..........OQ, where O is the centre of the circle, P lies on the circle and Q is in the interior of the circle.

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2. OP..........OR, where O is the centre of the circle, P lies on the circle and R lies in the exterior of the circle.

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3. Major arc.........minor arc of the circle.

4. Major arc.........semicircumference of the circle.

Exercise 18 Fill In The Blanks

1. A diameter of a circle is a chord that.........the centre.

    A. is away from

    B. do not pass through

    C. passes through

    D. None of the above

Answer: C

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2. A radius of a circle is a line segment with one end point.........and the other end point............

3. If we join any two points of a circle by a line segment, we obtain a...........of the circle.

A. Arc

B. Chord

C. Sector

D. None

Answer: B

4. Any part of a circle is called an..........of the circle.

A. radius

B. arc

C. centre

D. diameter

Answer: B

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5. The figure bounded by an arc and the two radii joining the end points of the arc with the centre is called a..........of the circle.

A. sector

B. segment

C. circumference

D. none of these

Answer: A

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A Test Paper 18

1. Define each of the following:

(a) Closed figures

(b) Open figures

(c) Polygons

2. Define each of the following:

(a) A scalene triangle

(b) An obtuse triangle

3. What do you mean by a convex quadrilateral?

Define a regular polygon.

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4. The angles of a triangle are in the ratio $3:5:7$. Find the measures of these angles.

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5. The angles of a quadrilateral are in the ratio $2:3:4:6$. Find the measures of these angles.

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6. State the properties of a rhombus.

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7. Define

(i) a trapezium

(ii) a kite.

8. Draw a circle with centre O and radius 3 cm.

Draw a sector having an angle of $54°$.

B Mark Against The Correct Answer In Each Of The Following

1. A quadrilateral having two pairs of equal adjacent sides but unequal opposite sides is called a

    A. parallelogram

    B. rectangle

    C. trapezium

    D. kite

Answer:

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2. If the diagonals of a quadrilateral bisect each other at right angles, then this quadrilateral is a

    A. rectangle

    B. parallelogram

    C. rhombus

    D. kite

Answer:

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3. A quadrilateral having one and only one pair of parallelo sides is called a

A. parallelogram

B. a kite

C. a trapezium

D. a rhombus

Answer:

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4. One of the base angles of an isosceles triangle is $70°$. The vertical angle is

A. $35°$

B. $40°$

C. $70°$

D. $80°$

Answer:

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1. State 'true' or 'false'

(i) The diagonals of a rhombus are equal.

(ii) The diagonals of a parallelogram bisect each other.

(iii) The centre of a circle bisects each chord of a circle.

(iv) Each diameter of a circle is a chord of the circle.

(v) The diagonals of a rhombus bisect each other at right angles.

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