MATHS

BOOKS - RS AGGARWAL MATHS (HINGLISH)

QUADRILATERALS

Example

1. The angles of a quadrilateral are in the ratio

1 : 2 : 3 : 4. Find the measure of each of the

four angles.

Exercise A

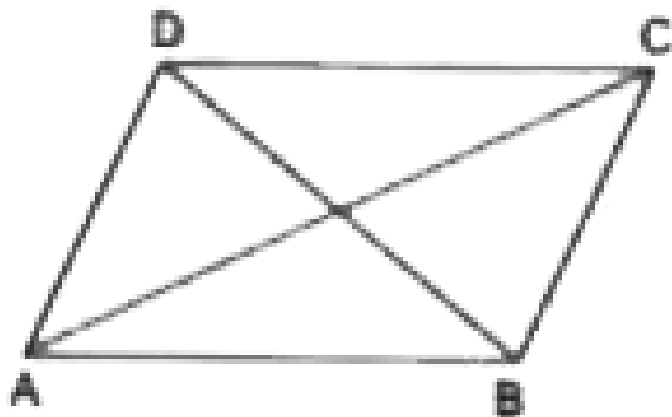**1.** In the adjacent figure, a quadrilateral has been shown.

(i) its diagonals.

(ii) two pairs of opposite sides.

(iii) two pairs of opposite angles.

(iv) two pairs of adjacent sides.

(v) two pairs of adjacent angles.

2. Draw a parallelogram ABCD in which AB = 6.5 cm, AD = 4.8 cm and $\angle BAD = 70°$. Measure its diagonals.

3. Two sides of a parallelogram are in the ratio $4:3$. If its perimeter is $56cm$, find the length and breadth .

    A. $16cm, 14cm$

    B. $16cm, 10cm$

    C. $16cm, 12cm$

    D. $15cm, 12cm$

Answer: C

4. Name each of the following parallelograms:

(i) The diagonals are equal and the adjacent sides are unequal.

(ii) The diagonals are equal and the adjacent sides are equal.

(iii) The diagonals are unequal and the adjacent sides are equal.

5. What is a trapezium? When do you cell a trapezium an isosceles trapezium? Draw an isosceles trapezium. Measure its sides and angles.

6. Which of the following statements are true and which are false?

(a) The diagonals of a parallelogram are equal.

(b) The diagonals of a rectangle are

perpendicular to each other.

(c) The diagonals of a rhombus are equal.

7. Give reasons for the following:

(a) A square can be thought of as a special rectangle.

(b) A square can be thought of as a special rhombus.

(c) A rectangle can be thought of as a special

parallelogram.

(d) A square is also a parallelogram.

8. A figure is said to be regular if its sides are equal in length and angles are equal in measure. What do you mean by a regular quadrilateral?

1. The sum of all the angles of a quadrilateral is

    A. $180\,^{\circ}$

    B. $270\,^{\circ}$

    C. $360\,^{\circ}$

    D. $400\,^{\circ}$

Answer: C

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2. The three angles of a quadrilateral are $80°$, $70°$ and $120°$. The fourth angle is

A. $110°$

B. $100°$

C. $90°$

D. $80°$

Answer: C

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3. The angles of a quadrilateral are in the ratio

3 : 4 : 5 : 6. The largest of these angles is

A. $90°$

B. $120°$

C. $150°$

D. $102°$

Answer: B

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4. A quadrilateral having one and only one pair of parallel sides is called

A. a parallelogram

B. a kite

C. a rhombus

D. a trapezium

Answer: D

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5. A quadrilateral whose opposite sides are parallel is called

A. a rhombus

B. a kite

C. a trapezium

D. a parallelogram

Answer: D

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6. An isosceles trapezium has

A. equal parallel sides

B. equal nonparallel sides

C. equal opposite sides

D. none of these

Answer: B

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

    A. a rectangle

    B. a rhombus

    C. a kite

    D. none of these

Answer: B

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8. A square has

    A. all sides equal and diagonals unequal

    B. all sides equal and diagonals equal

    C. all sides unequal and diagonal equal

    D. none of these

Answer: B

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

A. trapezium

B. parallelogram

C. kite

D. rectangle

Answer: C

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10. What do you mean by a regular quadrilateral?

A. A rectangle

B. A rhombus

C. A square

D. A trapezium

Answer: C