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## MATHS

## BOOKS - RS AGGARWAL MATHS

## (HINGLISH)

## QUADRILATERALS

Example

1. Three angles of $a$ quadrilateral are
$54^{\circ}, 80^{\circ}$ and $116^{\circ}$. Find the measure of the
fourth angle.
A. $120^{\circ}$
B. $105^{\circ}$
C. $100^{\circ}$
D. $110^{\circ}$

## Answer: D

## D Watch Video Solution

2. The four angles of a quadrilateral are in the ratio $2: 3: 5: 8$. Find the angles.
A. $40^{\circ}, 60^{\circ}, 120^{\circ}$ and $140^{\circ}$.
B. $80^{\circ}, 60^{\circ}, 80^{\circ}$ and $160^{\circ}$.
C. $40^{\circ}, 60^{\circ}, 100^{\circ}$ and $160^{\circ}$.
D. $40^{\circ}, 70^{\circ}, 100^{\circ}$ and $160^{\circ}$.

Answer: C

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3. The measures of two angles of a quadrilateral are $115^{\circ}$ and $45^{\circ}$, and the other two angles are equal. Find the measure of each of the equal angles.
A. $120^{\circ}$
B. $105^{\circ}$
C. $100^{\circ}$
D. $130^{\circ}$

Answer: C

## Exercise 15 Fill In The Blanks

1. A quadrilateral has ........ sides.
A. 3
B. 4
C. 5
D. 6

Answer: B

## 2. A quadrilateral has ........ angles.

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## 3. A quadrilateral has ......... vertices, no three of

 which are ....... .D Watch Video Solution
4. A quadrilateral has ......... diagonals.
A. 1
B. 2
C. 3
D. 4

## Answer: B

## D Watch Video Solution

5. A diagonal of a quadrilateral is a line segment that joins two ........ vertices of the quadrilateral.
A. Opposite
B. Adjacent
C. Cannot be determined
D. None of the above

Answer: A

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6. The sum of the angles of a quadrilateral is
A. $260^{\circ}$
B. $360^{\circ}$
C. $460^{\circ}$
D. $160^{\circ}$

Answer: B

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## Exercise 15

1. In the adjoining figure, $A B C D$ is a quadrilateral.

(i) How many pairs of adjacent sides are there?

Name them.
(ii) How many pairs of opposite sides are there? Name them.
(iii) How many pairs of adjacent angles are
there? Name them.
(iv) How many pairs of opposite angles are there? Name them.
(v) How many diagonals are there? Name them.

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2. Prove that the sum of the angles of a quadrilateral is $360^{\circ}$.

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3. The three angles of a quadrilateral are
$76^{\circ}, 54^{\circ}$ and $108^{\circ}$. Find the measure of the fourth angle.
A. $85^{\circ}$
B. $90^{\circ}$
C. $122^{\circ}$
D. $154^{\circ}$

## Answer: C

4. The angles of a quadrilateral are in the ratio
$3: 5: 7: 9$. Find the measure of each of these angles.
A. $45^{\circ}, 75^{\circ}, 105^{\circ}, 165^{\circ}$
B. $35^{\circ}, 75^{\circ}, 105^{\circ}, 135^{\circ}$
C. $45^{\circ}, 75^{\circ}, 105^{\circ}, 135^{\circ}$
D. $45^{\circ}, 85^{\circ}, 105^{\circ}, 135^{\circ}$

Answer: C

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## 5. A quadrilateral has three acute angles, each

 measuring $75^{\circ}$. Find the measure of the fourth angle.A. $90^{\circ}$
B. $75^{\circ}$
C. $125^{\circ}$
D. $135^{\circ}$

Answer: D

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6. Three angles of a quadrilateral are equal and the measure of the fourth angle is $120^{\circ}$.

Find the measure of each of the equal angles.
A. $80^{\circ}$
B. $65^{\circ}$
C. $70^{\circ}$
D. $90^{\circ}$

Answer: A

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7. Two angles of a quadrilateral measure $85^{\circ}$ and $75^{\circ}$ respectively. The other two angles are equal. Find the measure of each of these equal angles.
A. $110^{\circ}$
B. $102^{\circ}$
C. $100^{\circ}$
D. $120^{\circ}$

## Answer: C

8. In the adjacent figure, the bisectors of
$\angle A$ and $\angle B$ meet in a point P . If
$\angle C=100^{\circ}$ and $\angle D=60^{\circ}$, find the measure of $\angle A P B$.

A. $80^{\circ}$
B. $100^{\circ}$
C. $70^{\circ}$
D. $60^{\circ}$

## Answer: A

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