

R D Public School Betul Class-9th

Quadrilaterals

Quadrilaterals MCQs

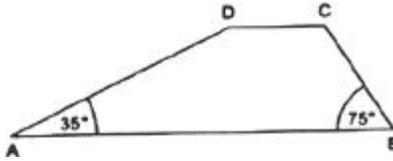
1. What is the sum of angles of quadrilaterals?
 - I. 90
 - II. 180
 - III. 360
 - IV. 270
2. A quadrilateral with only one pair of opposite sides parallel is called:
 - I. Trapezium
 - II. Square
 - III. Rectangle
 - IV. Rhombus
3. The consecutive angles of a parallelogram are
 - I. Complementary
 - II. Supplementary
 - III. Equal
 - IV. None of these
4. If in a parallelogram its diagonals bisect each other and are equal then it is a,
 - I. Square
 - II. Rectangle
 - III. Rhombus
 - IV. Parallelogram
5. If in a parallelogram its diagonals bisect each other at right angles and are equal, then it is a
 - I. Square
 - II. Rectangle
 - III. Rhombus
 - IV. Parallelogram
6. The quadrilateral formed by joining the mid-points of the sides of a quadrilateral ABCD taken in order is a square only if

R D Public School Betul Class-9th

- I. ABCD is a rhombus
 - II. Diagonals of ABCD are equal
 - III. Diagonals of ABCD are equal and perpendicular
 - IV. Diagonals of ABCD are perpendicular
7. Which of the following is not true?
- I. Every square is a rectangle
 - II. Every rectangle is a quadrilateral
 - III. Every parallelogram is a trapezium
 - IV. None of these
8. Which of the following is not true for a parallelogram?
- I. Diagonals bisect each other
 - II. Opposite sides are equal
 - III. Opposite angles are equal
 - IV. Opposite angles are bisected by the diagonals
9. ABCD is a parallelogram such that its diagonals are equal. What is the measure of $\angle ABC$?
10. In a parallelogram ABCD, if $\angle C = 80^\circ$ then what is the measure of $\angle A$?
11. In a parallelogram ABCD, if $\angle A$ is $\frac{4}{5}$ of $\angle B$, then what is $\angle A$?
12. Each side of a rhombus is 15 cm. if the length of one of its diagonals is 18 cm, then what is the length of the other diagonal?
13. ABCD is a rhombus such that $\angle ADB = 50^\circ$, then what is the measure of $\angle ACB$?
14. A diagonal of a rectangle is inclined to one side of the rectangle at 25° . What is the measure of acute angle between the diagonals?
15. Diagonals of a parallelogram ABCD intersect at O. if $\angle BOC = 90^\circ$ and $\angle BDC = 40^\circ$, then what is the measure of $\angle OAB$?
16. Name various kinds of parallelogram.
17. In a $\triangle ABC$, D, E and F are mid-points of sides AB, AC and BC respectively. If DE and DF are joined, find the perimeter of BDEF.
18. A diagonal of a parallelogram divides it into how many congruent triangles?
19. In the adjoining figure, ABCD is a trapezium in which $AB \parallel DC$. If $\angle A = 35^\circ$ and $\angle B = 75^\circ$, then find $\angle C$ and $\angle D$.

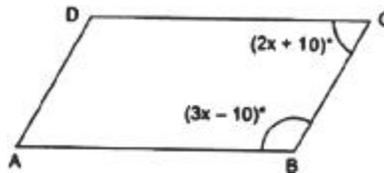
(2 Marks)

R D Public School Betul Class-9th



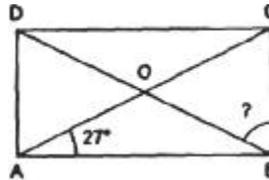
20. In a parallelogram ABCD, if $(3x - 10)^\circ = \angle B$ and $(2x + 10)^\circ = \angle C$, then find the value of x .

2 Marks)



21. The adjoining figure is a rectangle whose diagonals AC and BD intersect at O. If $\angle OAB = 27^\circ$, then find $\angle OBC$.

3 Marks)



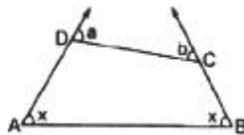
22. In the figure, AX and CY are respectively the bisectors of opposite angles A and C of a parallelogram ABCD. Show that $AX \parallel CY$

3 Marks)

23. The sides AD and BC of a quadrilateral are produced as shown in the given figure.

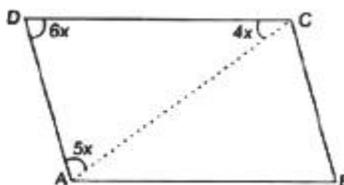
Prove that $x = \frac{a+b}{2}$.

4 Marks)



24. In the adjoining figure, ABCD is a ||gm. Find the angles A, B, C and D.

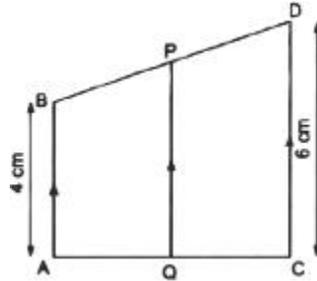
3 Marks)



R D Public School Betul Class-9th

25. In the adjacent figure, $AB \parallel QP \parallel CD$, Q is the mid point of AC. If $AB = 4$ cm and $CD = 6$ cm then find PQ.

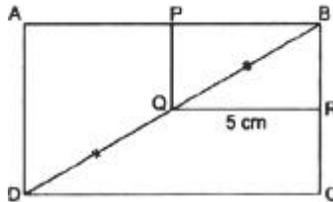
4 Marks)



26. In the adjoining figure, ABCD and PQRB are rectangles where Q is the mid point of BD.

If $QR = 5$ cm, then find the length of AB.

4 Marks)



27. If the bisectors of angles of a quadrilateral enclose a rectangle, then show that it is a parallelogram.

28. L, M, N, K are mid-points of sides BC, CD, DA and AB respectively of square ABCD, prove that DL, DK, BM and BN enclose a rhombus.

29. PQRS is a parallelogram. PS is produced to meet M so that $SM = SR$ and MR is produced to meet PQ produced at N. Prove that $QN = QR$.

30. In a $\triangle ABC$, DE is parallel to BC and D is the mid-point of side AB. Find the perimeter of $\triangle ABC$ when $AE = 4.5$ cm, $DE = 5$ cm and $DB = 3.5$ cm.

31. If an angle of a parallelogram is $\frac{4}{5}$ of its adjacent angle, then find the measures of all the angles of the parallelogram.

32. ABCD is a trapezium in which AB is parallel to CD. If $\angle A = 36^\circ$ and $\angle B = 81^\circ$, then find $\angle C$ and $\angle D$.

33. In a $\triangle ABC$, DE is parallel to BC and D is the mid-point of side AB. Find AE and BC if $DE = 6$ cm and $EC = 5$ cm.

34. In a parallelogram ABCD find the measure of all the angles if one angle measures 68° .

35. The lengths of diagonals of a rhombus are 24 cm and 18 cm respectively. Find the length of each side of the rhombus.

36. In a parallelogram ABCD find the measure of all the angles if one of its angles is 15° less than twice the smallest angle.