



MATHS

BOOKS - VIDHYASANGAM - RAO'S ACADEMY MATHS (KANNADA ENGLISH)

QUADRILATERALS



1. The angles of quadrilateral are in the ratio 3 : 5 : 9 : 13. Find all the angles of the quadrilateral.



2. If the diagonals of a parallelogram are equal, show that it is a rectangle.



3. Show that if the diagonals of a quadrilateral bisect each other at right angles, then it is a rhombus.



4. Show that the diagonals of a square are

equal and bisect each other at right angles.



5. Show that if the diagonals of a quadrilateral are equal and bisect each other at right angles, then it is a square.





6. Diagonal AC of a parallelogram ABCD bisects

A. Show that

it bisects C also





7. Diagonal AC of a parallelogram ABCD bisects

A. Show that

ABCD is a rhombus.



8. ABCD is a rhombus. Show that diagonal AC

bisects A as well as C and diagonal BD bisects

B as well as D.





9. ABCD is a rectangle in which diagonal AC

bisects A as well as C. Show that :

ABCD is a square





Quadrilateral ABED is a parallelogram





Quadrilateral BEFC is a parallelogram





AD|C|F and AD = CF





quadrilateral ACFD is a parallelogram





AC= DF



 $\Delta ABC \cong \Delta DEF.$





16. ABCD is a trapezium in which AB|C|D and

AD = BC. Show that

A=B





17. ABCD is a trapezium in which AB|C|D and AD = BC. Show that





18. ABCD is a trapezium in which AB|C|D and

AD = BC. Show that

$\Delta ABC \cong \Delta BAD$



Watch Video Solution

19. ABCD is a trapezium in which AB|C|D and

AD = BC. Show that

diagonal AC = diagonal BD





1. ABCD is a quadrilateral in which P, Q, R and S are mid-points of the sides AB, BC, CD and DA. AC is a diagonal. Show that :







2. ABCD is a quadrilateral in which P, Q, R and S are mid-points of the sides AB, BC, CD and DA. AC is a diagonal. Show that :

PQ=SR





3. ABCD is a quadrilateral in which P, Q, R and S are mid-points of the sides AB, BC, CD and DA. AC is a diagonal. Show that :

PQRS is a parallelogram.





4. ABCD is a rectangle and P, Q, R and S are mid-points of the sides AB, BC, CD and DA respectively. Show that the quadrilateral PQRS

is a rhombus.





5. ABCD is a trapezium in which AB|D|C, BD is a diagonal and E is the mid-point of AD. A line is drawn through E parallel to AB intersecting BC at F. Show that F is the mid-point of BC.



6. In a parallelogram ABCD, E and F are the mid-points of sides AB and CD respectively. Show that the line segments AF and EC trisect

the diagonal BD.





7. Show that the line segments joining the mid-points of the opposite sides of a quadrilateral bisect each other.

8. ABC is a triangle right angled at C. A line through the mid-point M of hypotenuse AB and parallel to BC intersects AC at D. Show that

D is the mid-point of AC



9. ABC is a triangle right angled at C. A line through the mid-point M of hypotenuse AB and parallel to BC intersects AC at D. Show that

 $MD \perp AC$



10. ABC is a triangle right angled at C. A line through the mid-point M of hypotenuse AB and parallel to BC intersects AC at D. Show that

 $CM = MA = rac{1}{2}AB$





