

Quadrilaterals

1. A diagonal of a rectangle is inclined to one side of the rectangle at 25° . The acute angle between the diagonals is?
2. ABCD is a rhombus such that $\angle ACB=40$, Then find $\angle AOB$?
3. D and E are the mid- points of the sides AB and AC of $\triangle ABC$ and o is any point on side BC. O is joined to A. If P and Q are the mid points of OB and OC respectively, then DEQP is Called?
4. The figure obtained by joining the mid points of the sides of a rhombus, taken in order is named as?
5. If APB and CQD are two parallel lines, then the bisectors of the angles APB, BPQ, CQP and PQD form?(name of the figure)
6. If bisectors of $\angle A$ and $\angle B$ of a quadrilateral ABCD intersect each other at P, of $\angle B$ and $\angle C$ at Q of $\angle C$ and $\angle D$ at R and of $\angle D$ and $\angle A$ at S, then PQRS is named as
7. If angles A, B, C and D of the quadrilateral ABCD, taken in order, are in the ratio 3:7:6:4, then ABCD is a what type of figure?
8. The quadrilateral formed by joining the mid points of the sides of a quadrilateral PQRS, taken in order, is a rhombus prove it
9. The quadrilateral formed by joining the mid points of the sides of a quadrilateral PQRS, taken in order, is a Rectangle prove it
10. Three angles of a quadrilateral are 75, 90 and 75. Find fourth angle
11. If the diagonals AC and BD of a parallelogram ABCD intersect each other at the point O, if $\angle DAC = 32$ and $\angle AOB = 70$ the find $\angle DBC$
12. Diagonals AC and BD of a parallelogram ABCD intersect each other at o, IF $OA = 3\text{cm}$ and $OD = 2\text{cm}$, then determine the length of the AC and BD
13. Can the angles 110, 80, 70 and 95 be the angles of a quadrilateral? Why or why not?
14. In quadrilateral ABCD $\angle A + \angle D = 180$, what special name can be given to this quadrilateral?
15. In $\triangle ABC$, $AB=5\text{cm}$, $BC = 8\text{cm}$ and $CA = 7\text{cm}$, if D and E are respectively the midpoints of AB and BC, find the length of DE?