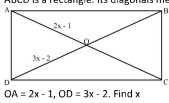
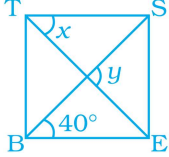




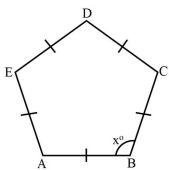
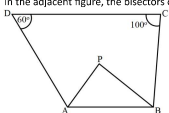
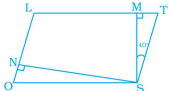
Instructions

1. New section on new page
2. Rough work on right hand side
3. Honesty is the best policy. Good Luck.
4. Keep the timer & make sure to spare 10 min for rechecking your paper

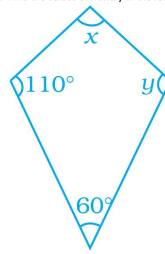
SECTION-A

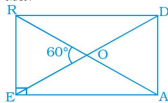
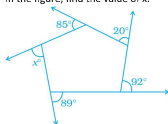
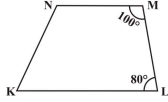
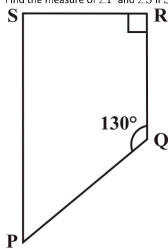
- Q1.** Which of the following quadrilaterals has two pairs of adjacent sides equal and its diagonals intersect at 90 degrees? **1 Mark**
A Rhombus **B** Rectangle **C** Square **D** Kite
- Q2.** If a diagonal of a quadrilateral bisects both the angles, then it is a: **1 Mark**
A kite **B** parallelogram **C** rhombus **D** rectangle
- Q3.** The angle sum of a convex polygon with number of sides 8 is: **1 Mark**
A 720° **B** 900° **C** 1080° **D** 1440°
- Q4.** How many sides does a regular polygon have if the measure of an exterior angle is 24°? **1 Mark**
A 6 **B** 9 **C** 15 **D** 12
- Q5.** The sum of the internal angles of a polygon is 10 right angles. Then the number of sides is: **1 Mark**
A 5 **B** 6 **C** 7 **D** 8
- Q6.** A quadrilateral whose all sides are equal, opposite angles are equal and the diagonals bisect each other at right angles is a _____. **1 Mark**
A rhombus **B** parallelogram **C** square **D** rectangle
- Q7.** Which one of the following is a regular quadrilateral? **1 Mark**
A Rectangle **B** Kite **C** Square **D** Trapezium
- Q8.** Directions: In the following questions, the Assertions (A) and Reason(s) (R) have been put forward. Read both the statements carefully and choose the correct alternative from the following: **1 Mark**
Assertion (A): The diagonals of a square bisect each other at right angles
Reason (R): The diagonals of a square do not divide the whole square into four equal parts.
A Both A and R are true and R is the correct explanation of A. **B** Both A and R are true but R is not the correct explanation of A.
C A is true but R is false. **D** A is false but R is true.
- Q9.** Which of the following statements are true and which are false? **1 Mark**
Every parallelogram is a rectangle.
- Q10.** In a quadrilateral, define the following: **1 Mark**
Opposite sides.
- Q11.** Fill in the blanks the following so as to make the statement true: **1 Mark**
A rectangle is a parallelogram in which
- Q12.** ABCD is a rectangle. Its diagonals meet at O. **1 Mark**

A 1 **B** 2 **C** 3 **D** -1
- Q13.** In the figure, BEST is a rhombus. Then the value of y - x is: **1 Mark**

A 40° **B** 50° **C** 20° **D** 10°

SECTION-B

- 
- Q24.** 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 $\angle APB$. **4 Marks**

- Q25.** In parallelogram LOST, SN \perp LO and SM \perp LT. Find $\angle STM$, $\angle SON$, and $\angle NSM$. **4 Marks**

- Q26.** In a quadrilateral ABCD, CO and DO are the bisectors of $\angle C$ and $\angle D$ respectively. Prove that $\angle COD = \frac{1}{2}(\angle A + \angle B)$. **5 Marks**

Q14. Find the values of x and y in the following kite. **2 Marks**



- Q15.** A playground in the town is in the form of a kite. The perimeter is 106 metres. If one of its sides is 23 metres, what are the lengths of other three sides? **2 Marks**

- Q16.** Find the measure of an exterior angle of a regular pentagon and an exterior angle of a regular decagon. What is the ratio between these two angles? **2 Marks**
- Q17.** Find the measure of each exterior angle of a regular Polygon of 15 sides. **2 Marks**
- Q18.** In the figure, find the value of x. **2 Marks**

- Q19.** Explain how this figure is a trapezium. Which of its two sides are parallel? **2 Marks**

- Q20.** Find the measure of $\angle P$ and $\angle S$ if $\overline{SP} \parallel \overline{RQ}$ in fig (if you find $\angle R$ is there more than one method to find $m\angle P$?) **3 Marks**

- Q21.** The measures of two adjacent angles of a parallelogram are in the ratio 3 : 2. Find the measure of each of the angles of the parallelogram. **3 Marks**
- Q22.** ABCD is a trapezium such that $AB \parallel CD$, $\angle D, \angle A : \angle D = 2 : 1$, $\angle B : \angle C = 7 : 5$ Find the angles of the trapezium. **3 Marks**
- Q23.** Find the angle measure x in the given figure. **3 Marks**