UNDERSTANDING QUADRILATERALS

1) The adjacent angles of a parallelogram are in the ratio 2 : 7 . Find all the angles.

2) Find the perimeter of a parallelogram with sides 12 cm and 8 cm.

3) Is it possible to have a regular polygon with measure of each exterior angle as 47 ? Why ? Can it be an interior angle of a regular polygon ?

4) Find the measure of each exterior angle of a Regular pentagon

5) Three angles of a quadrilateral are 50°, 40° and 123°. Find its fourth angle.

6) Find the perimeter of a rhombus whose diagonals are 16 cm and 12 cm.

7) The ratio of exterior angle to interior angle of a regular polygon is 1:5. Find the number of sides of the polygon.

8) If one of the angles of a rhombus is a right angle, Prove that it is a square.

9) If all the angles of a parallelogram are equal. Prove that it is a rectangle.

10) Each interior angle of a polygon is 140°. Find the number of sides of the polygon.

11) Find the length of the diagonal of a rectangle whose length is 24 cm and breadth is 9 cm.

12) LMNP is a trapezium such that LM || NP, $\angle L : \angle P = 1 : 4$, $\angle M : \angle N = 7 : 5$. Find the angles of the trapezium.

13) The measure of two adjacent angles of a quadrilateral are 120^0 and 50^0 and the other two acute angles are equal. Find the measure of each angle.

14) The five angles of a pentagon are in the ratio 3 : 4 : 5 : 7 : 8. Find all the angles.

15) PQRS is a quadrilateral in which PQ || RS. If $\angle Q = \angle S = 55^0$. Find the measures of $\angle P$ and $\angle R$

16) One of the diagonals of a rhombus and its sides are equal. Find the angles of the rhombus.

17) MORE is a rectangle. Its diagonals meet at P. If $MP = 4x + 13$ and $EP = 5x + 7$, find x.