JSUNILTUTORIAL, SAMASTIPUR BIHAR
8th Understanding Quadrilaterals Practice Paper

1. The sum of the angles of a polygon with n – sides is _____.

2. The external angle of a regular polygon is 20^0. How many sides does it have ? What is the measure of each interior angle? What is the total measure of its angles.

3. Is it possible to have a regular polygon with measure of each exterior angle as 58^0 ? Why? can it be an interior angle of a regular polygon ?

4. Find the measure of each exterior angle of a (i) Regular octagon (ii) Regular Decagon

5. Find the perimeter of a parallelogram with sides 9cm and 5cm.

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

7. The adjacent angles of a parallelogram are in the ratio 5:4 . Find all the angles.

8. If one of the angles of a parallelogram is a right angle, prove that it is a rectangle.

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

10. Find the length of the diagonal of a rectangle whose length is 15cm and breadth is 8cm.

11. A square is a convex polygon. Explain why ?

12. The measure of two adjacent angles of a quadrilateral are 110^0 and 50^0 and the other two acute angles are equal. Find the measure of each angle.

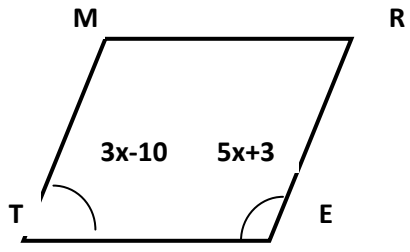
13) The five angles of a pentagon are in the ratio 5 : 6 : 7: 8 :10. Find all the angles.

14) GOAL is a quadrilateral in which GO||AL. If < G = < O =40^0. What are the measures of <A and <L

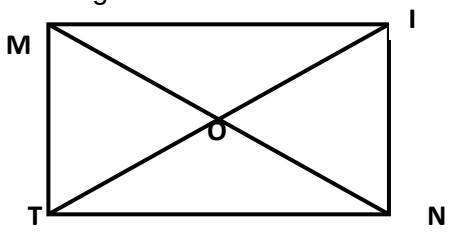
15) ABCD is a parallelogram what specific name can be given to it if the following additional facts are true ? (i)AB = AD (ii) <DAB = 90^0 (iii) AB = AD and <DAB = 90^0

16) Find the values of x and y in each case.

(i) TERM is a parallelogram

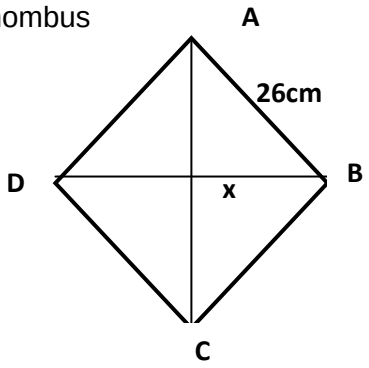


ii) MINT is a rectangle



OM = 5x + 2 OI = 17 Find MN also.

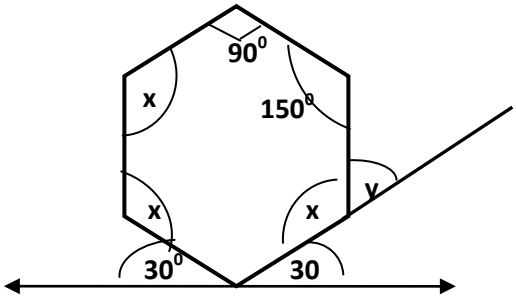
iii) ABCD is a rhombus



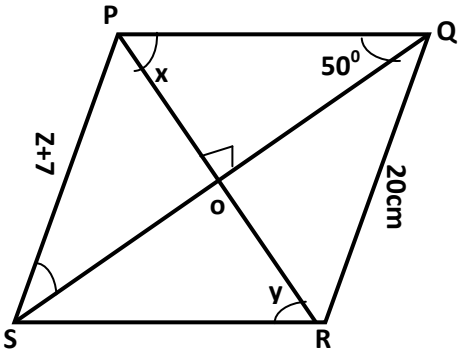
AB = 26cm

AC = 48cm

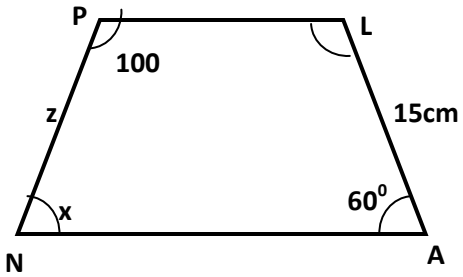
(iv)



(v) PQRS is a parallelogram (find z also)



vi) PLAN is a isosceles trapezium in which PL|| NA (find z also)



17. What you will call a rhombus in which one angle is 90^0.

Answers : 1. $(n-2) \times 180$ 2. 18, 160 , 2880 3. No, no 4. 45^0, 36^0 5. 28cm

6. 40cm 7. 100^0, 80^0, 100^0, 80^0 10. 17 cm (use Pythagoras theorem) 12. 50, 50, 50, 110

13. 75^0 , 90, 105 , 120 & 150 14. 140, 140 15. (i) Rhombus (ii) Rectangle (iii) Square

16. (i) 20^0 (ii) x= 3 MN = 6cm (iii) 10cm (iv) 120^0 (v) x= 40^0 y= 40^0 z= 13cm
(vi) x= 80^0, y = 120^0 z = 15cm 17. Square.