GRADE -8   <u>**Work sheet**</u>   **MATHEMATICS**

<u>**CH-4**</u> -   <u>**Understanding Quadrilaterals**</u>

Name:……………………………..   **Date:…………….**

<u>**MC Q**</u> **:**

1.What is the name of regular polygon with 4 sides?
   a. Equilateral triangle   b. square   c. rectangle   d. kite

2. How many sides a regular polygon will have if its exterior angles are of 45°?
   a. 4   b. 6   c. 3   d. 5

3. What is the name of regular polygon of 6 sides?

a. Square   b. pentagon   c. hexagon   d. octagon

4. How many diagonals does a quadrilateral have?
a. 1   b. 2   c. 3   d. 4

5) In a parallelogram opposite angles are?
a. Equal   b. half   c. doubled.   d. none of these

6. In a rectangle all angles are?
a. 45 °   b. 90 °   c. 100 °   d. 180 °

7. In a square both the diagonals are?
a. Equal   b. unequal   c. sometimes equal, sometimes unequal
d. none of these

8. How many diagonals does a pentagon have?
a. 4   b. 5   c. 6   d. 7

9) What is the name of regular polygon of 4 sides?
a. Equilateral triangle   b. square   c. rectangle   d. kite

          <u>**FILL IN THE BLANKS**</u> :

i). The measure of exterior angle of a regular polygon of 9 sides is …………….

ii) The sum of measure of exterior angle of any polygon is ………………..

iii Number of sides does a regular polygon have if its interior angle is 150°?

iv . Name of a regular polygon of 10 sides………………

v) A quadrilateral has……………… interior angles .
vi) A parallelogram in which all sides are equal is called ….. ….
vii) A parallelogram in which all sides are right angles is called ….
viii) The diagonals of a rectangle are …………….

Write TRUE/FALSE :

i) A polygon having 8 sides is called a hexagon.

ii) The sum of the measure of all the interior angle of any polygon is 360^0

iii) Each exterior angle of a regular pentagon of 12 sides measures 30^0 .

iv) A parallelogram in which all sides are equal is called square.

v)Every rectangle is a parallelogram.

vi)Every parallelogram is a rectangle.

ANSWER THE FOLLOWING QUESTIONS

1) Case Study Based Questions

1. Identify polygon in red colour?
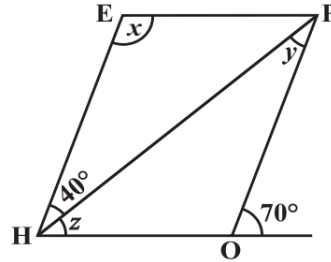2. What is the measure of each interior angle of the polygon?
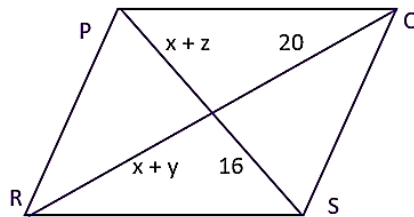3. What is the measure of each exterior angle of the polygon

2)
1How many sides does a regular polygon have if each its interior angle is 165°?
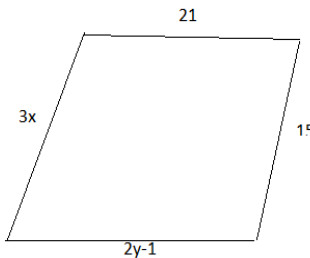2. What is the minimum interior angle possible in a regular polygon?

3. How many sides does a regular polygon have if the measure of its exterior angle is 36°?

4) ABCD is a parallelogram. Find the angle if x, y and z.

5) In a parallelogram PQRS find the value of x and y.

6) ABCD find the value of x and y

7) In a parallelogram PQRS, $\angle P:\angle Q$ = 1:2 Then find $\angle Q$= ?

8) ABCD is a trapezium with AB//CD .If < A = 106 ^{0} and < B = 122 ^{0} .

Find the measures of <C and < D.

9) The angles of a quadrilateral are in the following ratio. Find the measure of the four angles.
   a) 3:5:7:9   b) 2:2:3:5

10) find the number of a regular polygons if each interior angle is:

i)135^0 ii) 150^0 iii) 156^0

11)One angle of a parallelogram is 30^0 more than its adjacent angles.How much each angle measure?

12) Draw a rhombus with one of its angles equal to 70^0 and its sides equal to 6 cm.