



# ST. LAWRENCE HIGH SCHOOL



## TOPIC – Properties of Parallelogram

Subject : Mathematics Class-9 First Term F. M. 15

WORKSHEET NO. - 14

Solutions

Date: 01.03.2021

Q.1) Choose the correct option:

(1x15=15)

- i) ABCD is a rectangle. Point of intersection of AC and BD is O, if  $\angle AOB = 110^\circ$ , then the value of  $\angle OCB$  is  
b)  $55^\circ$
- ii) BD is the diagonal of a parallelogram ABCD. If  $\angle BAD = 75^\circ$ , and  $\angle CBD = 55^\circ$ , then the measure of  $\angle BDC$  is  
b)  $50^\circ$
- iii) In which of the following geometric figures the lengths of the diagonals are equal?  
d) rectangle
- iv) O is the midpoint of the diagonal BD of the parallelogram ABCD. BO bisects  $\angle ABC$ . The measure of  $\angle AOB$  is  
d)  $90^\circ$
- v) If in the parallelogram ABCD,  $\angle A : \angle B = 2 : 3$ , the measure of  $\angle D$  is  
d)  $108^\circ$
- vi) In the rhombus ABCD, if  $\angle ACB = 50^\circ$ , then the value of  $\angle ADB$  is  
b)  $40^\circ$
- vii) Perimeter of the parallelogram ABCD is 36cm. If  $AB = 9.5$  cm, then the length of the side AD is  
b) 8.5 cm
- viii) The lengths of the diagonals of a rhombus are 16cm and 12 cm. Perimeter of the rhombus is  
b) 10 cm
- ix) ABCD is a rectangle whose diagonals AC and BD intersect at O. If  $\angle AOB = 36^\circ$ , then measure of  $\angle OBC$  is  
b)  $54^\circ$
- x) O is the point of intersection of the diagonals AC and BD of the parallelogram ABCD. If  $\angle OAD = 50^\circ$ ,  $\angle OAB = 35^\circ$ , and  $\angle COD = 95^\circ$ , then measure of  $\angle OBC$  is  
c)  $45^\circ$
- xi) The perimeter of the parallelogram ABCD is 32 cm. If  $AB = 8.5$  cm, then the length of the side AD is  
c) 7.5 cm
- xii) In which of the following geometric figures the diagonals intersect each other at right angle?  
c) rhombus
- xiii) In the parallelogram ABCD, if  $\angle ABC = \angle BCD$ , then the parallelogram is  
b) rectangular figure
- xiv) P is a point on the side AD of the square ABCD such that  $\angle CPD = 30^\circ$ . CP and diagonal BD intersect each other at the point O. The measure of  $\angle COD$  is  
c)  $75^\circ$
- xv) The opposite side of a parallelogram are  $(3x + 2)$  cm and  $(5x - 8)$  cm. The value of the other side  $(2x - 1)$  cm of the parallelogram is  
a) 9 cm

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