



# ST. LAWRENCE HIGH SCHOOL



## TOPIC – Area of Triangular Region

Subject : Mathematics

Class-9

Second Term

F. M. 15

WORKSHEET NO. - 2

Solution

Date: 09.11.2020

Q.1) Choose the correct option:

(1x15=15)

- i) If the three points  $(3,1)$ ,  $(t, -t)$  and  $(-1, 13)$  are collinear then the value of  $t$  will be  
d) 5
- ii) If the vertices of a triangle are  $(1,1)$ ,  $(5, -2)$  and  $(3,4)$ , then its area is  
b) 9 sq. units
- iii) The co-ordinates of the consecutive vertices of a square are  $(-2, -7)$ ,  $(2, -4)$ ,  $(-1, 0)$  and  $(-5, -3)$ . The area of the square is  
b) 25 sq. units
- iv) ABC is a right angled triangle of which  $\angle ABC = 90^\circ$ , co ordinates of A and C are  $(0,4)$  and  $(3,0)$  resp. then the area of the triangle ABC is  
b) 6 sq. units
- v) If  $(0,0)$ ,  $(4, -3)$  and  $(x, y)$  are collinear then  
a)  $x = 8$ ,  $y = -6$
- vi) If in triangle ABC, the co-ordinates of vertex A is  $(7, -4)$  and centroid of triangle is  $(1,2)$ , then the co-ordinate of midpoint of BC is  
d)  $(-5, 8)$
- vii) If the points  $(1,2)$ ,  $(2,4)$  and  $(t, 6)$  are collinear, then the value of  $t$  will be  
d) 3
- viii) If the vertices of a triangle are  $(-1,0)$ ,  $(0,0)$  and  $(0,1)$ , then its area is  
b)  $1/2$  sq. unit
- ix) If the three points  $(0, 0)$ ,  $(2, -3)$  and  $(x, y)$  are collinear then,  
b)  $x = 4$ ,  $y = -6$
- x) If the points  $(-4, 0)$ ,  $(4,0)$  and  $(6, k)$  are collinear then the value of  $k$  is  
b) 0
- xi) If the points  $(8,1)$ ,  $(k, -4)$  and  $(2, -5)$  are collinear then the value of  $k$  is  
d) 3
- xii) If the area of the triangle formed by the points  $(2, 7)$ ,  $(5, 1)$  and  $(x, 3)$  be 18 sq. units then the value of  $x$  is  
a) 10 or -2
- xiii) The co ordinate of centroid of a triangle formed by the three points  $(7, -5)$ ,  $(-2, 5)$  and  $(4, 6)$  is  
c)  $(3, 2)$
- xiv) If the three points  $(a,0)$ ,  $(0,b)$  and  $(1,1)$  are collinear then find the value of  $1/a + 1/b$   
c) 1
- xv) Find the condition that the three points  $(a, b)$ ,  $(c, d)$  and  $(a - c, b - d)$  will be collinear.  
b)  $ad = bc$

-Chaitali Roy