



# ST. LAWRENCE HIGH SCHOOL



## TOPIC – Internal and External Division of Straight Line Segment

Subject : Mathematics

Class-9

F. M. 15

WORKSHEET NO. - 1

Second Term

Date: 07.11.2020

**Q.1) Choose the correct option:**

**(1x15=15)**

- i) Find the mid-point of the points (6,0) and (0,-6).  
a) (0,3)   b) (3,-3)   c) (3,0)   d) (-3,0)
- ii) If the two end points of the diameter of a circle are (1,-3) and (-7,9), then the co-ordinates of the centre of the circle are:  
a) (-4,6)   b) (-3,3)   c) (4,-6)   d) (3,-3)
- iii) The co-ordinates of the mid-point of the points (a+b, a-b) and (a-b, b-a) are  
a) (0,a)   b) (0,b)   c) (a,0)   d) (b,0)
- iv) The co-ordinates of end points of a diameter of a circle are (7,9) and (-1,-3). The co-ordinates of centre of circle is  
a) (3,3)   b) (4,6)   c) (3,-3)   d) (4,-6)
- v) A point which divides the line segment joining two points (2,-5) and (-3,-2) externally in the ratio 4:3. The ordinate of circle  
a) -18   b) -7   c) 18   d) 7
- vi) If the co-ordinates of the four consecutive vertices of a parallelogram are (-2,-1), (1,0), (4,3) and (1,t) then the value of t is:  
a) 1   b) 2   c) 3   d) -2
- vii) If the points P(1,2), Q(4,6), R(5,7) and S(x,y) are the vertices of a parallelogram PQRS, then  
a) x=2, y=4   b) x=3, y=4   c) x=2, y=3   d) x=2, y=5
- viii) The mid-point of line segment joining two points (p,2m), and (-p+2m, 2p-2m) is  
a) (p,m)   b) (2,-m)   c) (m,-p)   d) (m,p)
- ix) The abscissa at the point P which divides the line segment joining two points A (1,5), B(-4,7) internally in the ratio 2:3 is  
a) -1   b) 11   c) 1   d) -11
- x) Which of the following are the co-ordinates of the centroid of a triangle having vertices (-2,-5), (4,-1) and (1,0)?  
a) (-1,2)   b) (1,-2)   c) (2,-1)   d) (-2,1)
- xi) The co-ordinates of the three consecutive vertices of a triangle are (3,0), (-3,0) and (0,3). The co-ordinates of the point of intersection of the medians of the triangle are  
a) (1,0)   b) (0,1)   c) (0,0)   d) (1,1)
- xii) The length of the line segment AB is 10 units. P is a point on AB and AP = 6 units, PB = 4 units. If A(1,2) and B(-9,2), then co-ordinates of P are  
a) (-3,2)   b) (-5,2)   c) (5,2)   d) (-4,2)
- xiii) The co-ordinates of the centroid of the triangle formed by the points (a-b, b-c), (b-c, c-a) and (c-a, a-b) are  
a) (a,0)   b) (b,0)   c) (c,0)   d) (0,0)
- xiv) Find the co-ordinate of the point which divides the line segment joining (6,-4) and (-8,10) in the ratio 3 : 4 internally  
a) (0,-26)   b) (-26,0)   c) (0, -26/7)   d) None of these
- xv) Find the co-ordinate of the point which divides the line segment joining (-1,2) and (4,-5) in the ratio 3 : 2 externally  
a) (14,-19)   b) (-19,14)   c) (-14,19)   d) none of these