TOPIC – Area of Triangular Region

Subject : Mathematics   **Class-9**   **F. M. 15**

WORKSHEET NO. - 2   **Second Term**   **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
   a) 4   b) - 4   c) - 5   d) 5

ii)   If the vertices of a triangle are (1,1), (5, - 2) and (3,4), then its area is
   a) 8 sq. units   b) 9 sq. units   c) 12 sq. units   d) 18 q. 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
   a) 16 sq. units   b) 25 sq. units   c) 36 sq. units   d) 100 sq. units

iv)   ABC is a right angled triangle of which /ABC = 90°, co ordinates of A and C are (0,4) and (3,0) resp. then the area of the triangle ABC is
   a) 12 sq. units   b) 6 sq. units   c) 24 sq. units   d) 8 sq. units

v)   If (0,0), (4, -3) and (x , y) are collinear then
   a) x = 8 , y = -6   b) x = 8, y = 6   c) x = 4 , y = - 6   d) 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
   a) (-2, -5)   b) (- 2, 5)   c)(2, - 5)   d) (- 5, 8)

vii)   If the points (1,2), (2,4) and (t,6) are collinear, then the value of t will be
   a) 2   b) - 2   c) - 3   d) 3

viii)   If the vertices of a triangle are (- 1,0), (0,0) and (0,1), then its area is
   a) 1 sq. unit   b) 1/2 sq. unit   c) 3/2 sq. units   d) 2 sq. units

ix)   If the three points (0,0), (2, - 3) and (x, y) are collinear then,
   a) x = 4, y = 6   b) x = 4, y = - 6   c) x = - 4, y = - 6   d) x = - 1 , y = 2

x)   If the points (- 4, 0), (4,0) and (6,k) are collinear then the value of k is
   a) - 1   b) 0   c) 1   d) 2

xi)   If the points (8,1), (k , - 4) and (2, - 5) are collinear then the value of k is
   a) 0   b) 1   c) – 3   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   b) - 10 or 2   c) 5 or 1   d) - 5 or 1

xiii)   The co ordinate of centroid of a triangle formed by the three points (7, - 5), (- 2, 5) and (4,6) is
   a) (3, - 2)   b) (2, 3)   c) (3, 2)   d) (2, - 3)

xiv)   If the three points (a,0), (0,b) and (1,1) are collinear then find the value of 1/a + 1/b
   a) - 1   b) 0   c) 1   d) 2

xv)   Find the condition that the three points (a,b), (c,d) and (a - c, b - d)will be collinear.
   a) ab = cd   b) ad = bc   c) ac = bd   d) None of these

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