

WORKSHEET- 3

1. Show that the following points are the vertices of an isosceles triangle: $(4,5)$, $(2,-1)$, $(-3,4)$
2. Show that the following points are the vertices of a right triangle: $(7, 9)$, $(3, -7)$, $(-3,3)$
3. Verify whether the points $A(5,2)$, $B(-9,-3)$, and $C(-3,-5)$ form a triangle.
4. Find the perimeter of the closed figure formed by the points $P(2,-4)$, $Q(2,6)$, $(-2,6)$ and $S(-2,-4)$.
5. Find the value of x so that $AB=BC$ where A, B and C are $(6,8)$, $(x,8)$ and $(5,12)$.
6. What point on x -axis is equidistant from $(7,6)$ and $(-3,4)$?
7. The coordinates of A and B are $(5,-9)$ and $(11, k)$. Find the value of k if the distance $AB=10$ units.
8. If $A(6,-1)$, $B(1,3)$ and $C(k,8)$ are three points such that $AB = BC$, find the value of k .
9. Show that the points $A(a, b+c)$, $B(b, c+a)$ and $C(c, a+b)$ are collinear.
10. Find all possible values of ' a ' for which the distance between the points $A(a, -1)$ and $B(5,3)$ is 5 units.
11. Find the circum centre of a triangle whose vertices are $(8,6)$, $(8,-2)$ and $(2,-2)$. Also find its circum radius.
