

Coordinate geometry

Mid-point Formula- Worksheet

1. Find the mid-point of line segment joining the points $(-2,-2)$ and $(2,-4)$.
2. Find a point R which is equidistant from the points $P(-5,4)$ and $Q(-1,6)$ and lies on the line segment joining PQ
3. If P $(2,p)$ is the midpoint of the line segment joining the points $A(6,-5)$ and $B(-2,11)$, find the value of p.

4. Find the coordinates of the points which divide the line segment joining the A $(-2, 2)$ and B $(2, 8)$ into four equal parts.
5. Prove that PQRS is a parallelogram where P $(4, 5)$, Q $(7, 6)$, R $(4, 3)$ and $(1, 2)$.
6. If A $(2, 2)$, B $(-4, 4)$ and $C(5,-8)$ are the vertices of a triangle, the find the length of the median through vertex C.

7. If the midpoint of a line segment joining $A(x/2, y+1/2)$ and $B(x+1,y-3)$ is $C(5,-2)$ find x and y.
8. If $(1,2)$, $(4,y)$, $(x,6)$ and $(3,5)$ are the vertices of a parallelogram taken in order, find the values of x and y.
9. For the triangles with vertices $A(-2, -3)$, $B(6,-3)$ and $C(4,5)$ prove that the length of the line segment joining the midpoints of the sides AC and BC is half the length of AB.
