Working with the Midpoint Formula:

Example of a midpoint using coordinate geometry, given line AB:

The midpoint of AB is point M. To find the coordinates of point M use the formula below:

The Midpoint Formula: $(\dfrac{x_1 + x_2}{2} , \dfrac{y_1 + y_2}{2})$

Examples:

1) Find the coordinates of the midpoint of the segment whose coordinates are (2,3) and (4,-3).

2) Midpoint M of AB has coordinate (6,5). If the coordinates of A are 4,1, what are the coordinates of B?

3) Find the midpoints of the sides of a quadrilateral with vertices: A(0,0), B(10,0), C(7,5, and D(3,5).

Find the midpoint of the given points:

1) U(-2,-6) & V(4,8)   2) W(-11,4) & X(8,-1)

3) Y(-3,-6) & Z(12,13)

4) A(-2,-6) & B(-8,-2)

5) F(2,0) & E(-5,-1)

6) D(4,5) & C(9,-18)

7) G(-13,-6) & H(-5,0)

8) I(0,0) & J(6,-8)

9) N(10.6,-12.8) & M(6,-7.8)

10) L(2.7,-6) & K(6.3,8.9)