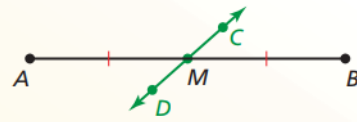


Definition:

A **segment bisector** is an object that intersects a segment at its

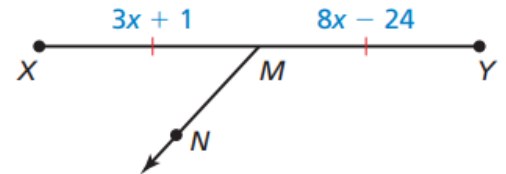
_____.



_____ is a segment bisector of \overline{AB} .
 So, $\overline{AM} \cong \overline{MB}$ and $AM = MB$.

Example:

Identify the segment bisector of \overline{XY} and then find XY .

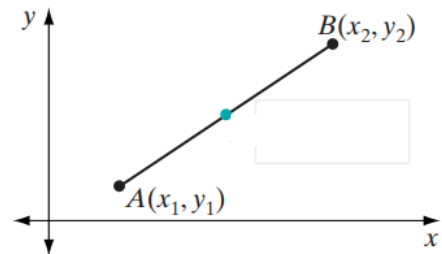


Coordinate Geometry Formulas:

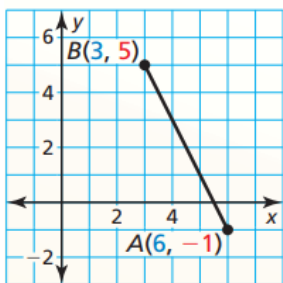
Slope of $\overline{AB} = \frac{y_2 - y_1}{x_2 - x_1}$

Midpoint of \overline{AB} : $\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$

Distance between A and B: $AB = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$



Examples:



Find the slope of \overline{AB}

Find the midpoint of \overline{AB}

Find AB

The midpoint of \overline{JK} is $M(2,1)$. One endpoint is $J(1,4)$.
 Find the coordinates of endpoint K .