

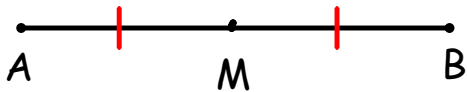
Chapter 2: Segments and Angles

2.1 Segment Bisectors

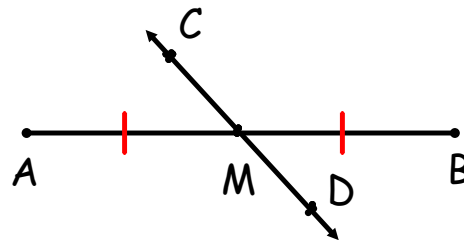
The midpoint of a segment is the point on the segment that divides it into two congruent segments.

A segment bisector is a segment, ray, line, or plane that intersects a segment at its midpoint.

To bisect a segment means to divide the segment into two congruent segments.



M is the midpoint of \overline{AB}



\overleftrightarrow{CD} is a bisector of \overline{AB}

Example 1: Checkpoint in the middle of pg. 54

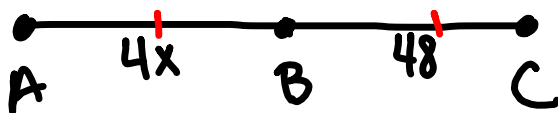
$$1. DE = \frac{18}{2} = 9$$

$$2. NP = 11$$

$$EF = \frac{18}{2} = 9$$

$$MP = 11 + 11 = 22$$

Solve for x .



$$\frac{4x}{4} = \frac{48}{4}$$

$$x = 12$$

The midpoint formula:

$$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

ordered pair

coordinate plane - graph

Example 2: Checkpoint at the bottom of pg. 55

$$3. \begin{matrix} x & y \\ P(2, 5) \end{matrix}$$

$$Q(4, 3)$$

$$M\left(\frac{2+4}{2}, \frac{5+3}{2}\right)$$

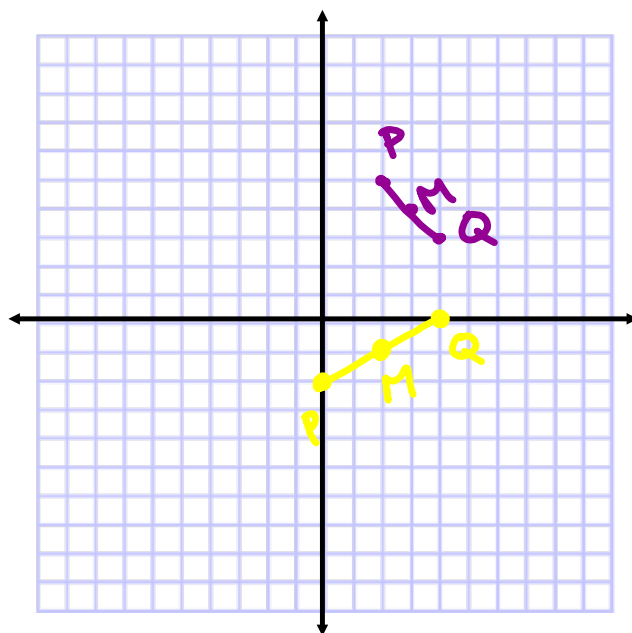
$$M(3, 4)$$

$$4. P(0, -2)$$

$$Q(4, 0)$$

$$M\left(\frac{0+4}{2}, \frac{-2+0}{2}\right)$$

$$M(2, -1)$$



Name

2.1

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Notes 2.2