Name _____

Midpoint and Distance

Find the coordinates of the midpoint of each segment. Then find the length of the segment.

1. $\overline{XY}$ with endpoints $X(2, 6)$ and $Y(8, 14)$ Midpoint: _____

   Length: _____

2. $\overline{CD}$ with endpoints $C(-5, 3)$ and $D(-1, 9)$ Midpoint: _____

   Length: _____

3. $\overline{MN}$ with endpoints $M(10, 11)$ and $N(-14, 4)$ Midpoint: _____

   Length: _____

4. $\overline{QR}$ with endpoints $Q(-2, -12)$ and $R(-6, -9)$ Midpoint: _____

   Length: _____

Find the coordinates of the endpoint.

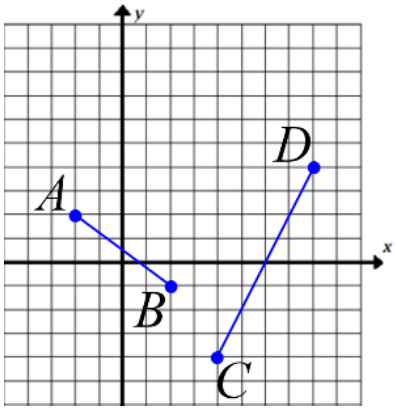
5. M is the midpoint of $\overline{AB}$. A has coordinates $(10, 4)$ and M has coordinates $(15, 7)$. Find the coordinates of B.

   Coordinates of B: _____

6. K is the midpoint of $\overline{JL}$. J has coordinates $(-2, 8)$ and K has coordinates $(2, -1)$. Find the coordinates of L.

   Coordinates of L: _____

Use the graph to find the length of the segment.



7. Find the length of $\overline{AB}$.

   $AB =$_____

8. Find the length of $\overline{CD}$.

   $CD =$_____

Name _____

Midpoint and Distance Answers

Find the coordinates of the midpoint of each segment. Then find the length of the segment.

1. $\overline{XY}$ with endpoints $X(2, 6)$ and $Y(8, 14)$ Midpoint: $(5, 10)$

   Length: 10

2. $\overline{CD}$ with endpoints $C(-5, 3)$ and $D(-1, 9)$ Midpoint: $(-3, 6)$

   Length: $2\sqrt{13}$

3. $\overline{MN}$ with endpoints $M(10, 11)$ and $N(-14, 4)$ Midpoint: $(-2, 7.5)$

   Length: 25

4. $\overline{QR}$ with endpoints $Q(-2, -12)$ and $R(-6, -9)$ Midpoint: $(-4, -10.5)$

   Length: 5

Find the coordinates of the endpoint.

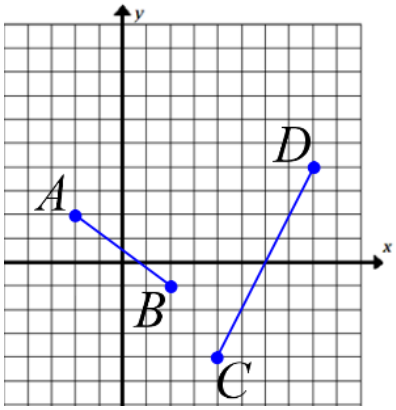
5. M is the midpoint of $\overline{AB}$. A has coordinates $(10, 4)$ and M has coordinates $(15, 7)$. Find the coordinates of B.

   Coordinates of B: $(20, 10)$

6. K is the midpoint of $\overline{JL}$. J has coordinates $(-2, 8)$ and K has coordinates $(2, -1)$. Find the coordinates of L.

   Coordinates of L: $(6, -10)$

Use the graph to find the length of the segment.



7. Find the length of $\overline{AB}$.

   $AB = 5$

8. Find the length of $\overline{CD}$.

   $CD = 4\sqrt{5}$