

Determine the coordinates of the midpoint for each segment. Identify the quadrant that each midpoint lies in.

1. \overline{PQ} has endpoints $P(5, -3)$ and $Q(2, 4)$.

Midpoint:

Quadrant:

2. \overline{RS} has endpoints $R(-2, 3)$ and $S(-8, -2)$.

Midpoint:

Quadrant:

3. $(3, -5), (0, 10)$

Midpoint:

Quadrant:

4. $(3, -5), (-9, -8)$

Midpoint:

Quadrant:

Find the midpoint of the line segment with the given endpoints.

7) $(-7, 5), (-10, 10)$

8) $(10, 1), (-2, 8)$

9) $(-3, -10), (-8, 7)$

10) $(1, 0), (-5, 2)$

Challenge Problem:

29. Critical Thinking Point M is the midpoint of \overline{AB} . The coordinates of point A are $(-8, 3)$ and the coordinates of M are $(-2, 1)$. What are the coordinates of point B ?