Coordinate Geometry 1 • The Midpoint

Name _____ **Period** _____ **Date** _____

For Exercises 1–3, find the coordinates of the midpoint of the segment
with each pair of endpoints.

1. $(10, -3)$ and $(-2, -1)$ **2.** $(-4, -5)$ and $(2, -11)$ **3.** $(0, 3)$ and $(5, -1)$
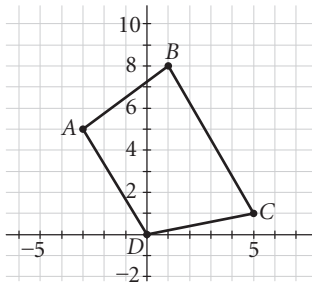
4. The midpoint of $\overline{XY}$ is $(3, -5)$. The coordinates of point X are $(1, 5)$.
What are the coordinates of point Y ?

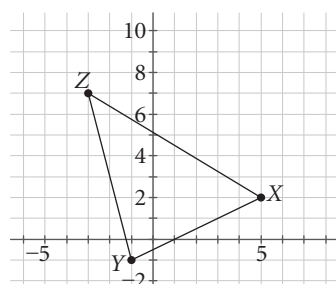For Exercises 5 and 6, use $\overline{CD}$ from the coordinate grid at right.

5. Find the midpoint of $\overline{CD}$.

6. Find the points on $\overline{CD}$ that divide the segment into three
congruent parts. Graph your solution and explain your method.
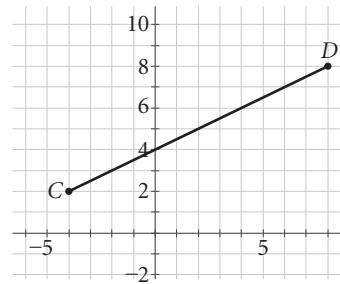
7. Find the midpoint of diagonal
$\overline{AC}$ of $ABCD$.

8. Find the midpoint
of the base $\overline{XY}$ in $\triangle XYZ$.

9. How many midpoints does a segment have? Explain your reasoning.

10. How many segments have the midpoint $(2, -3)$? Explain your
reasoning.