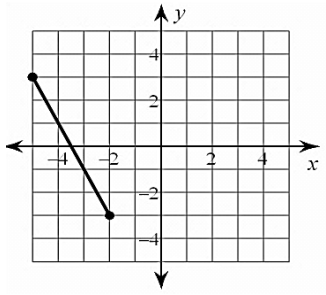
Name:	Class:
Topic:	Date:

Main Ideas/Questions	Notes
Distance Formula	Used to find the distance between two points (x_1, y_1) and (x_2, y_2)
	Formula:
Examples	**1.** Find the distance between the two points on the graph. 
	2. Find AB given A(-4, 1) and B(3, -1).
	3. Find EF given E(-7, -2) and F(11, 3)
Midpoint Formula	Used to find the midpoint between two points (x_1, y_1) and (x_2, y_2)
	Formula:
	4. Find the midpoint of $\overline{GH}$ given G(7, -5) and H(9, -1).
	5. Find the midpoint of $\overline{AB}$ given A(-7, 4) and B(3, -4).

Finding a Missing Endpoint

6. Find the coordinates of A if M(-1, 2) is the midpoint of $\overline{AB}$ and B has coordinates of (3, -5).

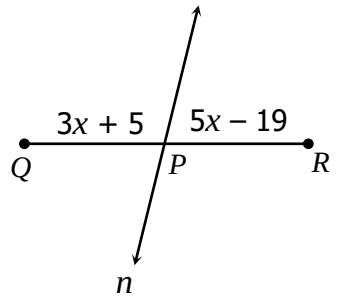
7. Find the coordinates of J if K(-5, 10) is the midpoint of $\overline{JL}$ and L has coordinates of (-8, 6).

8. Find the coordinates of R if Q(-1, 3) is the midpoint of $\overline{PR}$ and P has coordinates of (5, 6).

More Practice with Algebra

9. If P is the midpoint of $\overline{XY}$, $XP = 8x - 2$, and $PY = 12x - 30$, find the value of x.

10. If G is the midpoint of $\overline{FH}$, $FG = 14x + 25$, and $GH = 73 - 2x$, find FH.



11. Using the diagram to the left, if line n bisects $\overline{QR}$, find QP.