

Distance Formula

$$d = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

Midpoint Formula

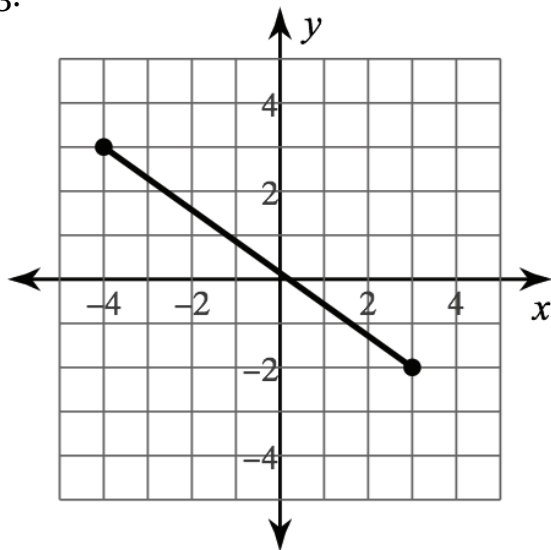
$$M = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

Find the distance between each pair of points.

1. $(-8, -4)$ & $(2, -9)$

2. $(-11, -12)$ & $(-4, 12)$

3.



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

4. $(3, 8)$ & $(5, -10)$

5. $(1, -3)$ & $(-5, 2)$

Given the midpoint and one endpoint of a line segment, find the other endpoint.

6. Endpoint: $(9, 7)$, midpoint: $(-3, -2)$

7. Endpoint: $(-6, 4)$, midpoint: $(-5, 1)$