

The Midpoint Formula

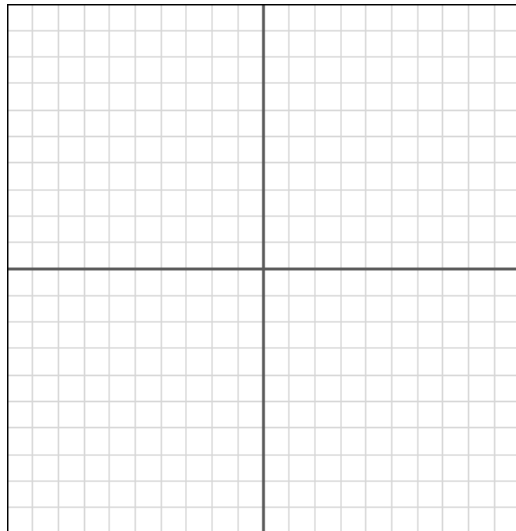
$$\text{midpoint } (x_m, y_m) = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$$

1. Find the midpoint between the two points.

a) $(-4, -1)$ and $(-2, 9)$

b) $(5, -6)$ and $(-4, 3)$

2. If the coordinates of P are $(-5, 1)$ and the midpoint between P and Q is $(2, -3)$ find the coordinates of Q .



3. Find the coordinates of the center of the circle if the endpoints of the diameter are $(-2, -1)$ and $(4, 2)$, then find the radius.

