

Midpoint Formula

Sheet 2

Example : Find the other endpoint of the line segment with the endpoint $(-9, -3)$ and the midpoint $(-7, -4)$.

$$\text{Midpoint} = \left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right) \Rightarrow (-7, -4) = \left(\frac{-9 + x_2}{2}, \frac{-3 + y_2}{2} \right)$$

$$\Rightarrow -7 = \left(\frac{-9 + x_2}{2} \right), -4 = \left(\frac{-3 + y_2}{2} \right) \Rightarrow -14 = -9 + x_2, -8 = -3 + y_2$$

$$\mathbf{(-5, -5) = (x_2, y_2)}$$

Find the other endpoint:

1) Endpoint : $(-1, 5)$,

t and midpoint.

7), midpoint : $(3, 0)$

PREVIEW

Gain complete access to the largest
collection of worksheets in all subjects!

Members, please
log in to
download this
worksheet.

Not a member?
Please sign up to
gain complete
access.

3) Endpoint : $(-10, -1)$ 9, 11), midpoint : $(-7, 9)$ 5) Endpoint : $(9, 2)$, r10, 2), midpoint : $(-5, 0)$

www.mathworksheets4kids.com

7) Endpoint : $(-3, -11)$, midpoint : $(3, -2)$ 8) Endpoint : $(12, -8)$, midpoint : $(5, 1)$