

Name : \_\_\_\_\_

## Midpoint Formula

MS4

Example: Find the midpoint of the line segment with the endpoints  $(\frac{1}{2}, 5)$  and  $(-1, 3)$ .

$$\begin{aligned}\text{Midpoint} &= \left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right) = \left( \frac{\frac{1}{2} - 1}{2}, \frac{5 + 3}{2} \right) \\ &= \left( -\frac{1}{4}, 4 \right)\end{aligned}$$

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

1)  $(1, 7), (-5, 7)$

3)  $(-3, -9), (5, 3)$

5)  $(6, \frac{1}{4}), (-2, -1)$

7)  $(\frac{3}{5}, -4), (-2, 2)$

9)  $(-8, 4), (4.6, -4)$

10)  $(0.8, -4), (9, 10)$

# 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.

[www.mathworksheets4kids.com](http://www.mathworksheets4kids.com)

Name : \_\_\_\_\_

## Answer key

### Midpoint Formula

MS4

Example: Find the midpoint of the line segment with the endpoints  $(\frac{1}{2}, 5)$  and  $(-1, 3)$ .

$$\begin{aligned}\text{Midpoint} &= \left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right) = \left( \frac{\frac{1}{2} - 1}{2}, \frac{5 + 3}{2} \right) \\ &= \left( -\frac{1}{4}, 4 \right)\end{aligned}$$

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

1)  $(1, 7), (-5, 7)$

$(-2, 7)$

3)  $(-3, -9), (5, 3)$

$(1, -3)$

5)  $(6, \frac{1}{4}), (-2, -1)$

$(2, -\frac{3}{8})$  or  $(2, -0.375)$

7)  $(\frac{3}{5}, -4), (-2, 2)$

$(-\frac{7}{10}, -1)$  or  $(-0.7, -1)$

9)  $(-8, 4), (4.6, -4)$

$(-1.7, 0)$

10)  $(0.8, -4), (9, 10)$

$(4.9, 3)$

**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.

[www.mathworksheets4kids.com](http://www.mathworksheets4kids.com)