

Geometry 11/17

Warm Up IXL

8th Grade

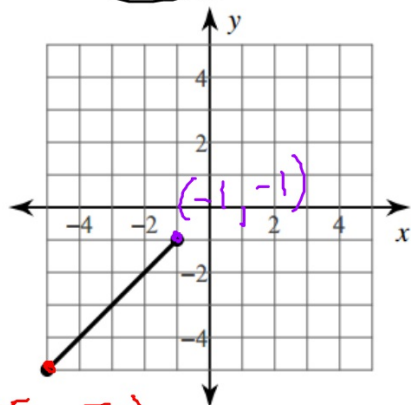
T.7

1.3 Review Distance and Midpoint

I can find the distance and midpoint of segments in the coordinate plane

Find the midpoint of each line segment.

1)



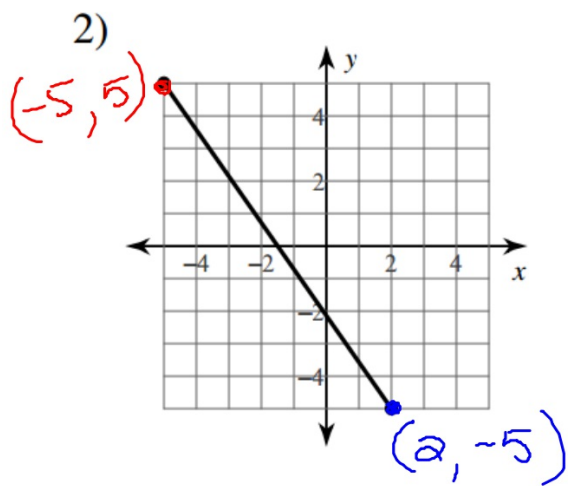
$(-5, -5)$

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

$$\left(\frac{-5 + -1}{2}, \frac{-5 + -1}{2} \right)$$
$$\left(\frac{-6}{2}, \frac{-6}{2} \right)$$

I can find the distance and midpoint of segments in the coordinate plane

Find the midpoint of each line segment.



$$\left(\frac{-5 + 2}{2}, \frac{5 + -5}{2} \right)$$

$$\left(\frac{-3}{2}, \frac{0}{2} \right)$$

$$\left(\frac{-3}{2}, 0 \right)$$

I can find the distance and midpoint of segments in the coordinate plane

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

9) $(-4, 4), (5, -1)$

$$\left(\frac{-4+5}{2}, \frac{4+(-1)}{2} \right)$$
$$\left(\frac{1}{2}, \frac{3}{2} \right)$$

10) $(-1, -6), (-6, 5)$

$$\left(\frac{-1+(-6)}{2}, \frac{-6+5}{2} \right)$$
$$\left(\frac{-7}{2}, \frac{-1}{2} \right)$$

I can find the distance and midpoint of segments in the coordinate plane

Find the other endpoint of the line segment with the given endpoint and midpoint.

21) Endpoint: $(-1, 9)$, midpoint: $(-9, -10)$

Endpoint (x, y)

$$\frac{x - 1}{2} = -9 \quad \frac{y + 9}{2} = -10$$
$$\frac{x - 1}{+1} = \frac{-18}{+1}$$
$$x - 1 = -18$$
$$x = -17$$
$$\frac{y + 9}{-1} = \frac{-20}{-1}$$
$$y + 9 = -20$$
$$y = -29$$

$(-17, -29)$

22) Endpoint: $(2, 5)$, midpoint: $(5, 1)$

(x, y)

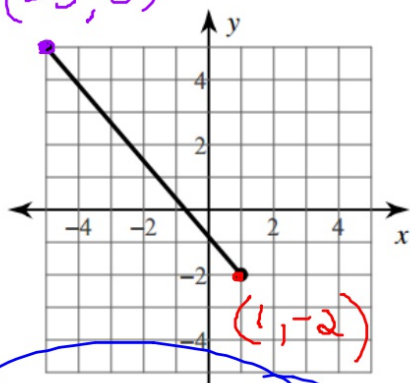
$$\frac{x + 2}{2} = 5 \quad \frac{y + 5}{2} = 1$$
$$\frac{x + 2}{-2} = \frac{10}{-2}$$
$$x + 2 = 10$$
$$x = 8$$
$$\frac{y + 5}{-1} = \frac{2}{-1}$$
$$y + 5 = -2$$
$$y = -7$$

$(8, -7)$

I can find the distance and midpoint of segments in the coordinate plane

Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

1) $(-5, 5)$



$$d = \sqrt{85}$$

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

$$d = \sqrt{(1 - (-5))^2 + (-2 - 5)^2}$$

$$d = \sqrt{(6)^2 + (-7)^2}$$

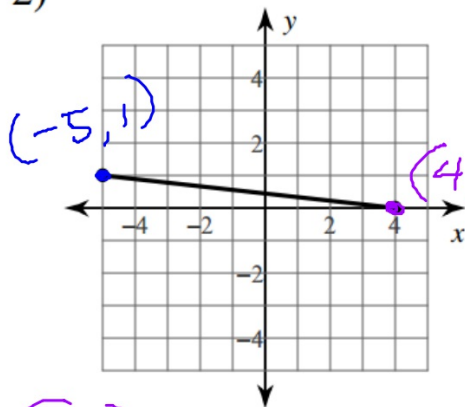
$$d = \sqrt{36 + 49}$$

$$\begin{array}{r} 85 \\ \sqrt{} \\ 5 \quad 17 \end{array}$$

I can find the distance and midpoint of segments in the coordinate plane

Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

2)



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

$$d = \sqrt{(-5 - 4)^2 + (1 - 0)^2}$$

$$d = \sqrt{(-9)^2 + (1)^2}$$

$$d = \sqrt{81 + 1}$$

$$d = \sqrt{82}$$

$$\begin{array}{r} 82 \\ \swarrow \searrow \\ 2 \quad 41 \end{array}$$

I can find the distance and midpoint of segments in the coordinate plane

Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

7) $(-2, 3), (-7, -7)$

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

$$d = \sqrt{(-2 - (-7))^2 + (3 - (-7))^2}$$

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

$$d = \sqrt{(2 - (-1))^2 + (-9 - 4)^2}$$

I can find the distance and midpoint of segments in the coordinate plane

Hmwk

Wkst