

# Midpoint and Distance in the Coordinate Plane Assignment

Find the coordinate of the midpoint of the segment with the given endpoints on number line.

1. Segment  $\overline{QR}$

$x_1 = -4$                        $x_2 = 0$



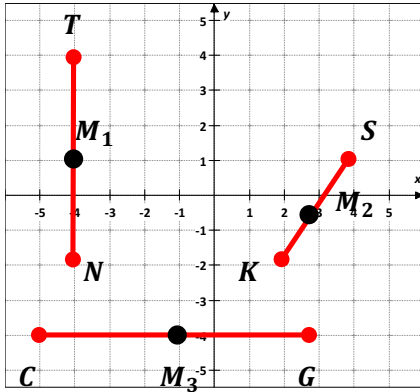
2. Segment  $\overline{PS}$

$x_1 = -8$                        $x_2 = -4$



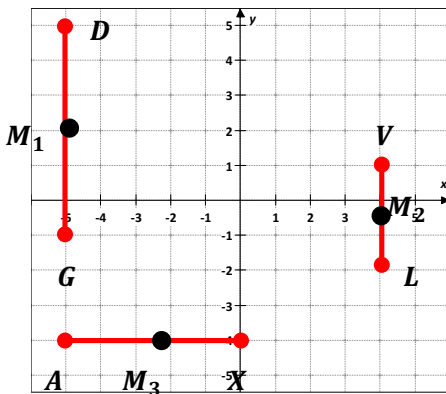
Record the coordinates of the segment's end points and the coordinates of the segment's midpoint in the table below.

- 3.



Endpoint	Endpoint Coordinates	Endpoint	Endpoint Coordinates	Midpoint	Midpoint Coordinates
$T$		$N$		$M_1$	
$S$		$K$		$M_2$	
$C$		$G$		$M_3$	

- 4.



Endpoint	Endpoint Coordinates	Endpoint	Endpoint Coordinates	Midpoint	Midpoint Coordinates
$D$		$G$		$M_1$	
$V$		$L$		$M_2$	
$A$		$X$		$M_3$	

**Midpoint and Distance in the Coordinate Plane** Assignment

Find the coordinate of the midpoint of the segment with the given endpoints in the coordinate plane.

5. Segment  $\overline{AV}$  $A(4, 12)$  $V(-6, -3)$ 6. Segment  $\overline{PO}$  $P(-5, 10)$  $O(13, 24)$ 7. Segment  $\overline{KL}$  $K(12, 12)$  $L(-6, 6)$ 8. Segment  $\overline{IJ}$  $I(-6, -12)$  $J(-18, 22)$ 

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

9. Endpoint  $(1, 12)$  Midpoint  $(3, -3)$ 10. Endpoint  $(2, 8)$  Midpoint  $(-3, 4)$

## Midpoint and Distance in the Coordinate Plane Assignment

11. *Endpoint* (5, 6) *Midpoint* (4, -6)

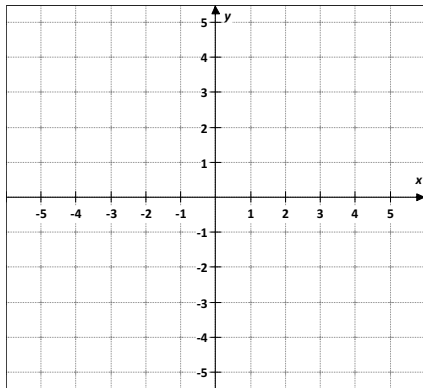
12. *Endpoint* (-6, 0) *Midpoint* (0, -1)

Find the distance between each pair of points. Round to the nearest tenth.

13.  $R(-4, 1)$

$F(0, -2)$

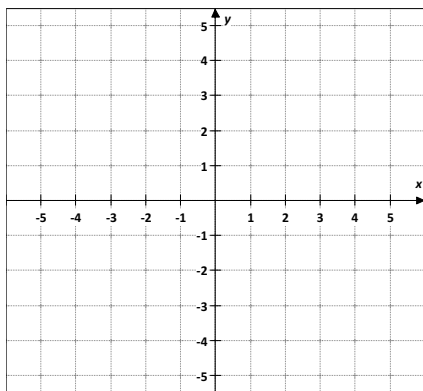
$d(R, F) = ?$



14.  $A(-2, 4)$

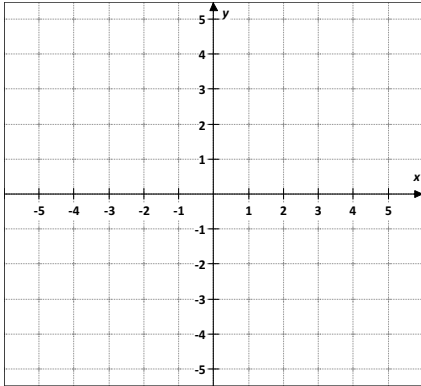
$N(3, -3)$

$d(A, N) = ?$

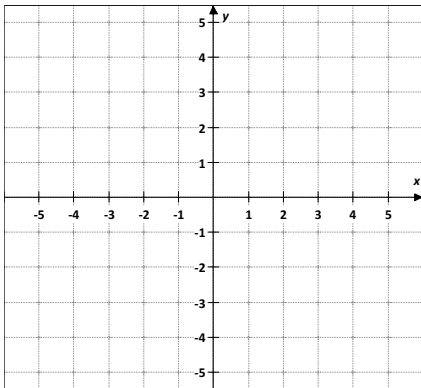


## Midpoint and Distance in the Coordinate Plane Assignment

15.  $B(1, 2)$   $W(-5, -5)$   
 $d(B, W) = ?$



16.  $E(-2, 4)$   $N(5, 4)$   
 $d(E, N) = ?$



### WORD PROBLEM

17. Determine the point  $N$  on the  $x$ -axis that is equidistant from  $A(1, 2)$  and  $B(2, -2)$ .