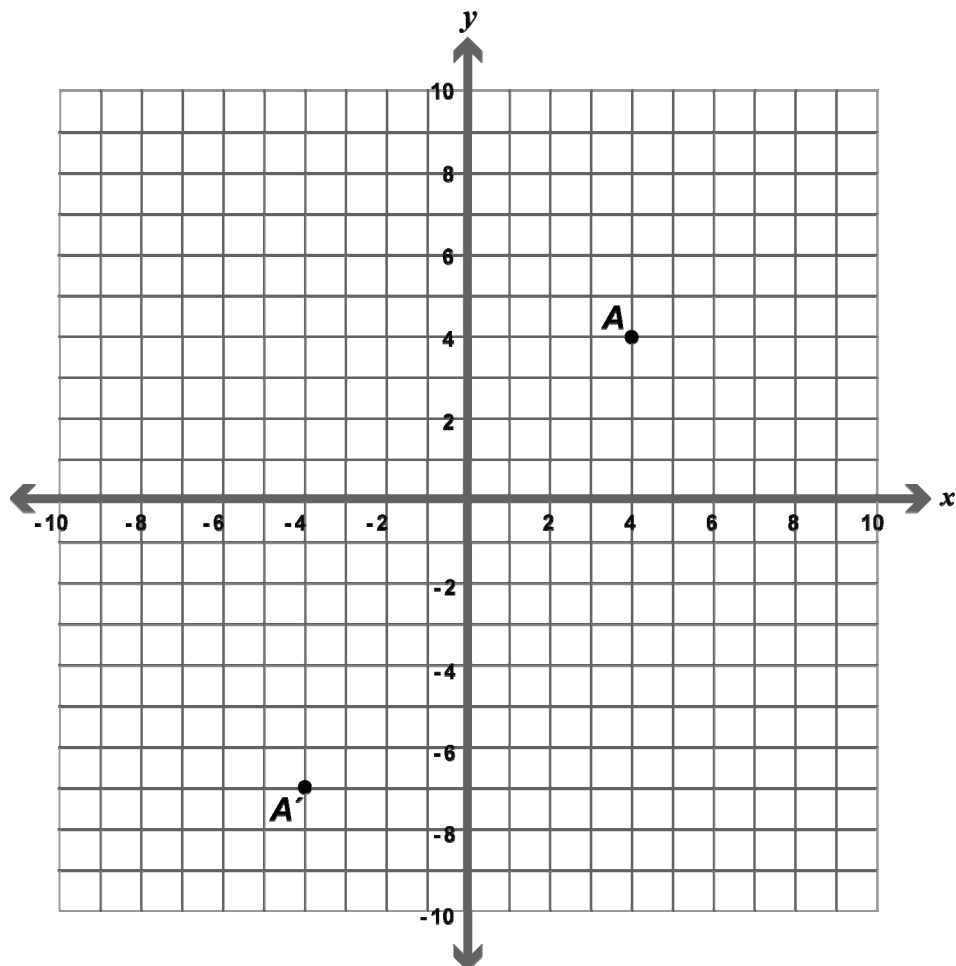


Name: _____ Period: _____ Date: _____

Activity: Points on a Coordinate Plane

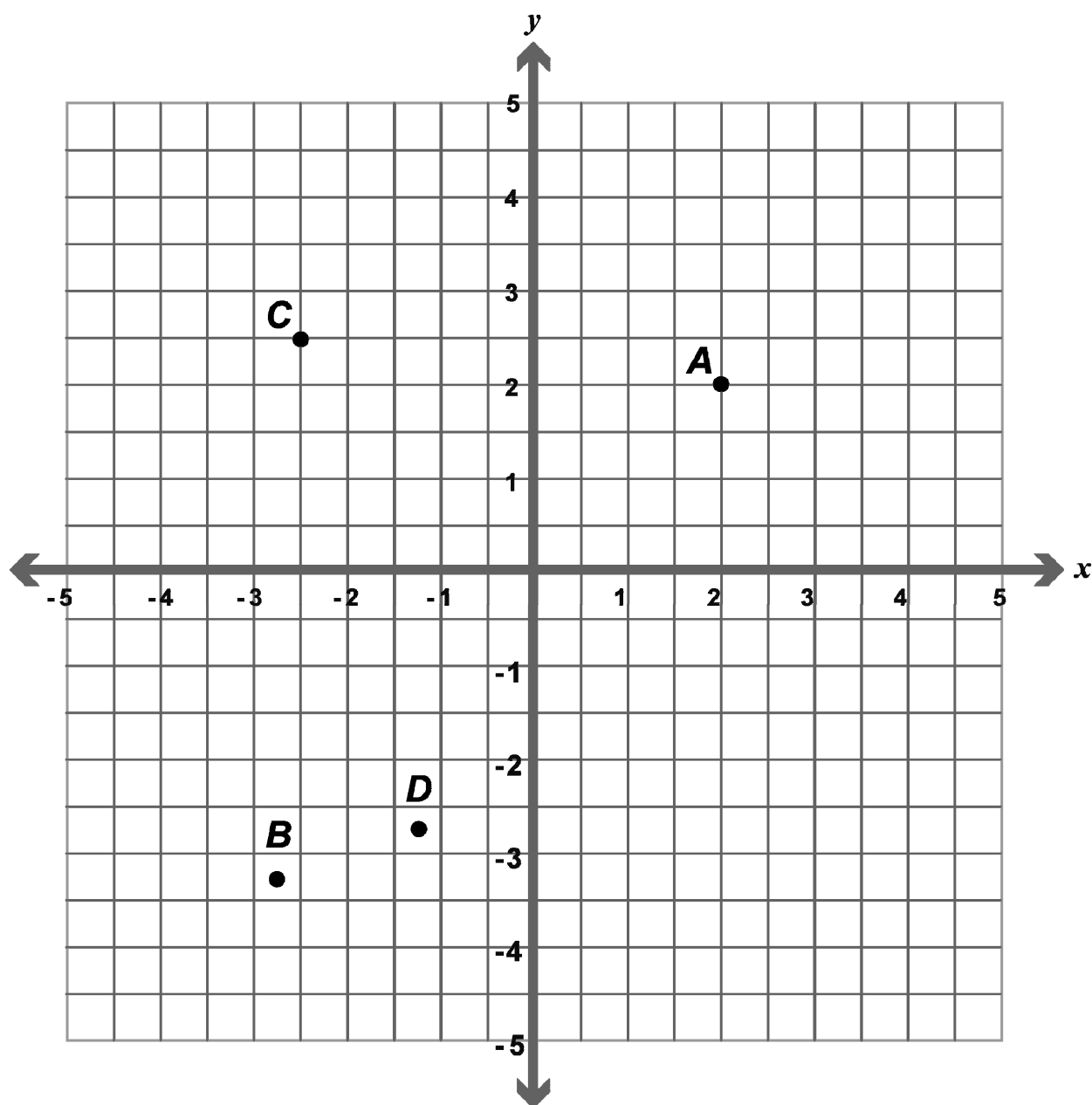


Use the points on the grid to fill in the information on the table.

A (,)	A' (,)
Description of the Transformation from A to A' in Words	
Algebraic Mapping Notation	

Name: _____ Period: _____ Date: _____

Activity: Locating Points



Lesson 1
Grade 10

- Use the graph to fill in the information on the table below.

Scale on the x-axis	
Scale on the y-axis	
Coordinates of A	(,)

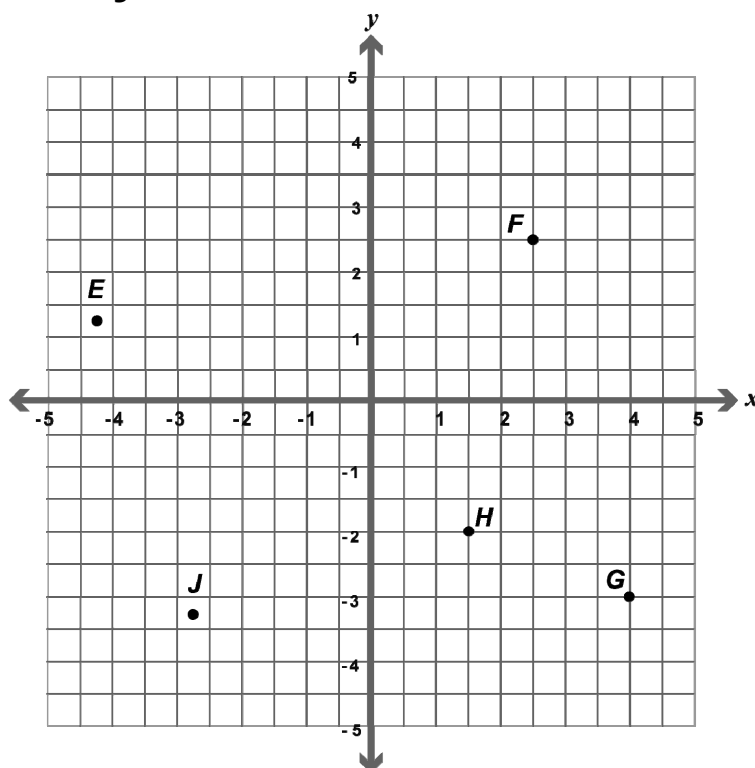
- Create A' by transforming A 4 whole units to the left and 3 whole units down.
A' (,)
- Write the mapping notation of A to A'
(x, y) → (,)
- Which point is located at $\left(-\frac{5}{2}, \frac{5}{2}\right)$? _____ Rewrite the coordinates at this point as decimals. _____
- Which is easier to locate, a point written with fractions or points written with decimals? Why?

- Describe how to use a graphing calculator to change a fraction to a decimal?

- Which point is located at $\left(-\frac{11}{4}, -\frac{13}{4}\right)$? _____ Rewrite the coordinates at this point as decimals. _____
- With a map pencil or highlighter, shade the graph for all $x < 1$. Which points fall in the shaded region? _____
- With a different colored map pencil or highlighter, shade the graph for all $y < -3$. Which point(s) fall in the region shaded by both colors? _____
- Describe the process that you would use to determine the point that satisfies the conditions $x < -2$ and $y > 2$.

Name: _____ Period: _____ Date: _____

Activity: Where's the Point—Part 1

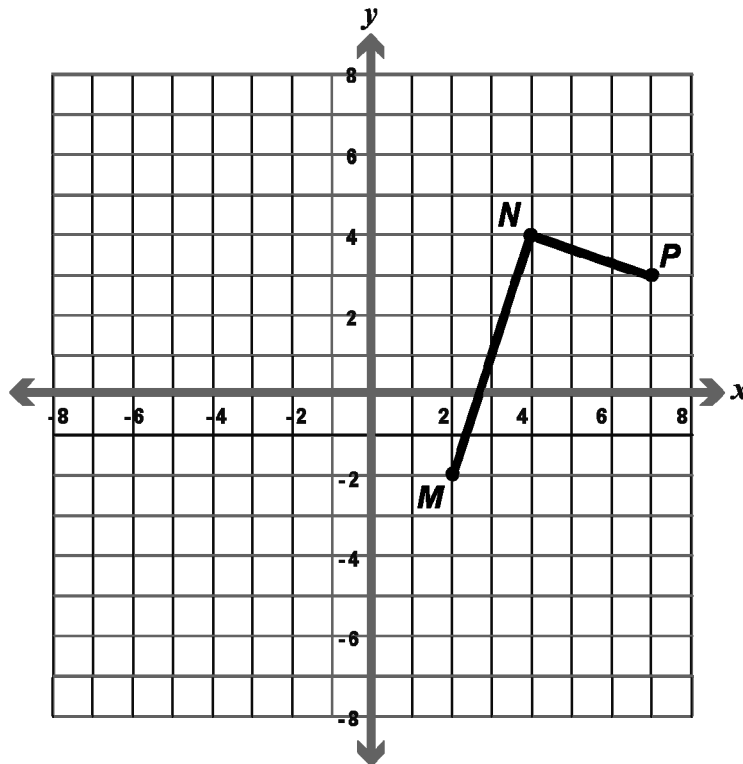


Answer the following questions and describe your thinking process that gave you your answers.

Graph 1	My Thinking Process
What are the coordinates of point F ?	
If (x, y) represent the coordinates of point F , which point is represented by $(x - 1, y - 4.5)$?	
For which point is $x < -1$ and $y < -2$?	
Which point best represents the ordered pair $\left(-\frac{17}{4}, \frac{5}{4}\right)$?	

Name: _____ Period: _____ Date: _____

Activity: Where's the Point—Part 2

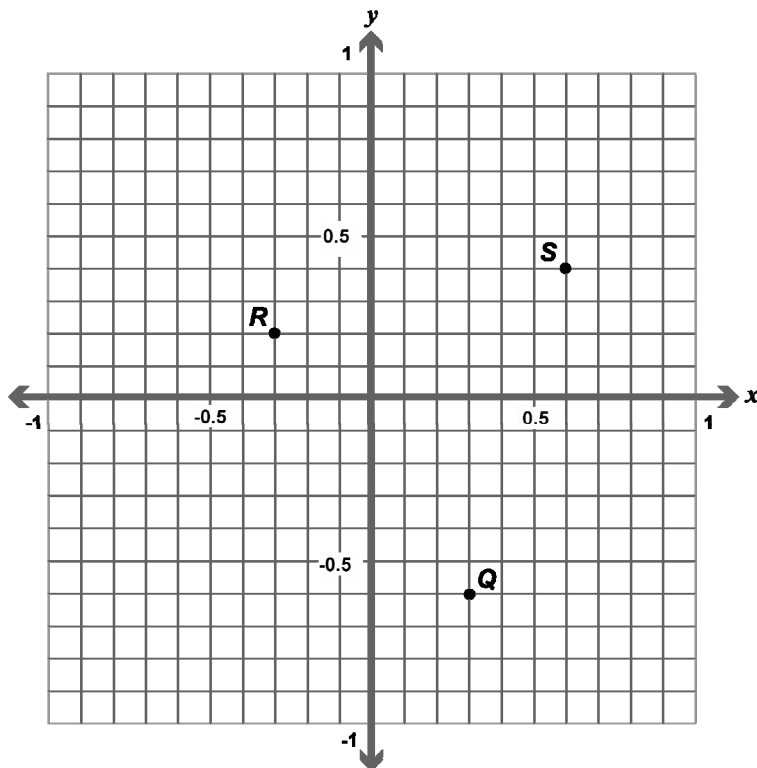


Answer the following questions and describe your thinking process that gave you your answers.

Graph 2	My Thinking Process
If points M , N , and P represent 3 vertices of a rectangle, what are the coordinates of the fourth vertex, L ?	
If point N is reflected across the y -axis, what is the ordered pair that represents the image of N ?	
If point N is translated to the point $(x - 5, y + 1)$, what are the coordinates of the translated point?	

Name: _____ Period: _____ Date: _____

Activity: Where's the Point—Part 3



Answer the following questions and describe your thinking process that gave you your answers.

Graph 3	My Thinking Process
What are the coordinates of point Q ?	
What are the coordinates of point R ?	
If (x, y) represent the coordinates of point S , which point is represented by $(x - 0.9, y - 0.2)$?	
Which ordered pair has $x < 0.6$ and $y > -0.4$?	

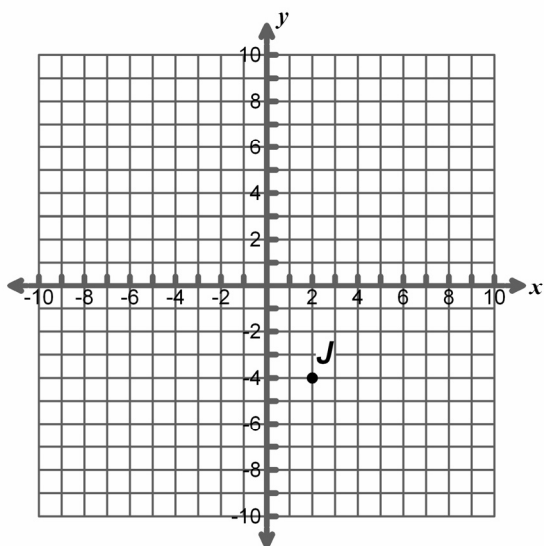
Lesson 1
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Name: _____ Period: _____ Date: _____

Evaluate: Coordinate Plane

1

Find the new location of point J if it is translated to the point $(x - 4, y + 2)$.

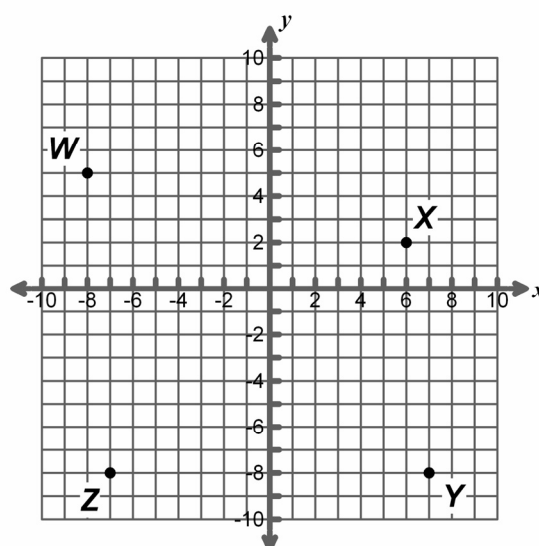


- A $(-2, -2)$
- B $(-2, -6)$
- C $(4, 8)$
- D $(4, -8)$

2

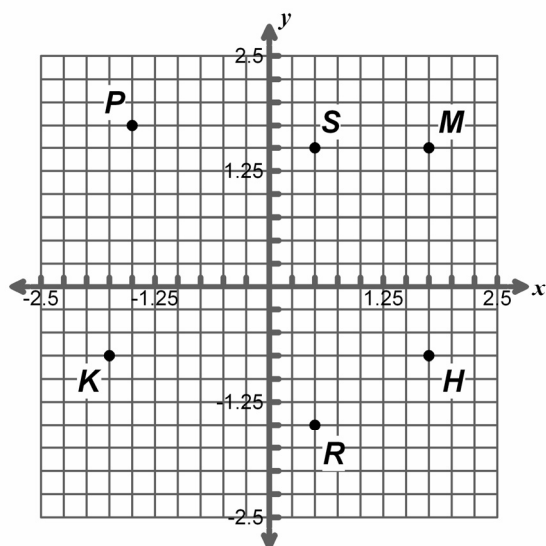
For which point is $x > \frac{9}{2}$ and

$$y < -\frac{11}{2}?$$



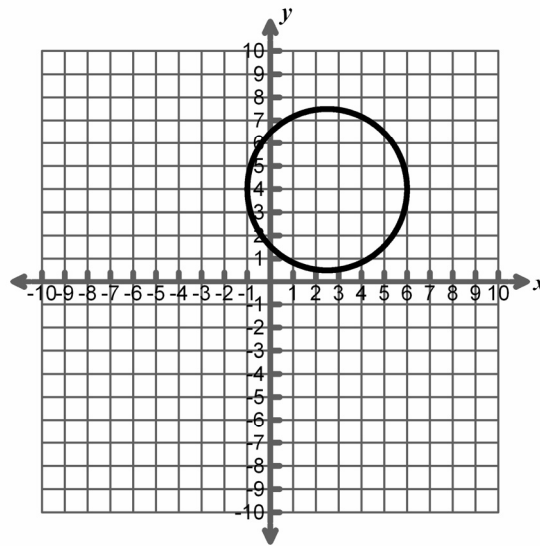
- A W
- B X
- C Y
- D Z

- 3 Which of the following ordered pairs best represents the location of point R ?



- A $\left(\frac{1}{2}, \frac{3}{2}\right)$
 B $\left(\frac{1}{2}, -\frac{3}{2}\right)$
 C $\left(\frac{7}{4}, -\frac{3}{4}\right)$
 D $\left(-\frac{3}{2}, \frac{1}{2}\right)$

- 4 The circle shown has a diameter of 7 units.



Which of the following ordered pairs best represents the location of the center of the circle?

- A $\left(\frac{1}{2}, 4\right)$
 B $\left(\frac{2}{5}, 4\right)$
 C $\left(\frac{3}{2}, 4\right)$
 D $\left(\frac{5}{2}, 4\right)$