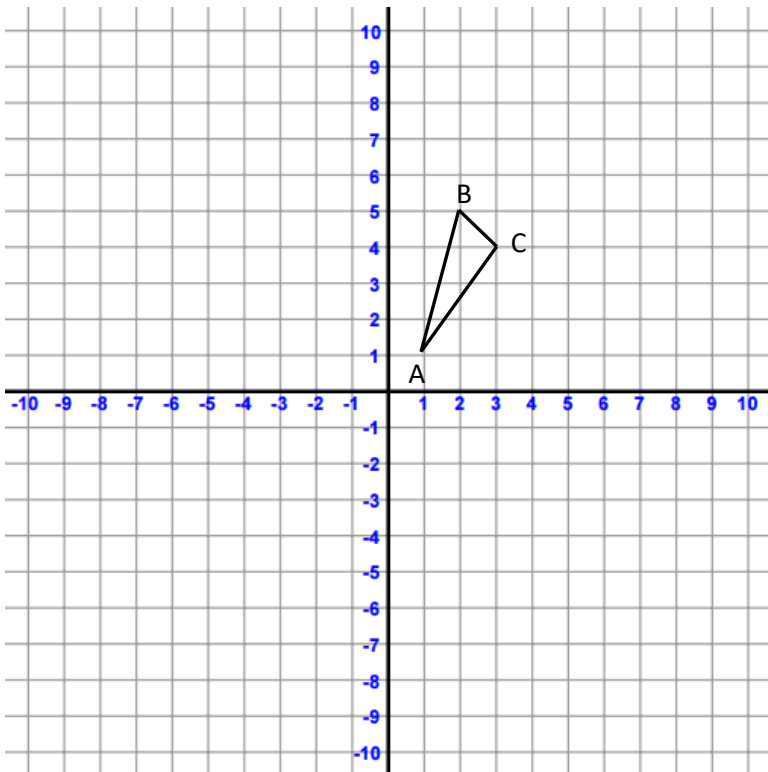


Name _____



Complete each of the following transformations, using the given ΔABC as the preimage. Record the resulting coordinates of the image $\Delta A'B'C'$. As you are working, look for a pattern in each transformation.

Translation right 3

- A(1,1) \rightarrow A' (,)
- B(2,5) \rightarrow B' (,)
- C(3,4) \rightarrow C' (,)

Reflect over x-axis

- A(1,1) \rightarrow A' (,)
- B(2,5) \rightarrow B' (,)
- C(3,4) \rightarrow C' (,)

Rotate 90° Counter Clockwise

- A(1,1) \rightarrow A' (,)
- B(2,5) \rightarrow B' (,)
- C(3,4) \rightarrow C' (,)

Translate left 6

- A(1,1) \rightarrow A' (,)
- B(2,5) \rightarrow B' (,)
- C(3,4) \rightarrow C' (,)

Reflect over y-axis

- A(1,1) \rightarrow A' (,)
- B(2,5) \rightarrow B' (,)
- C(3,4) \rightarrow C' (,)

Rotate 180°

- A(1,1) \rightarrow A' (,)
- B(2,5) \rightarrow B' (,)
- C(3,4) \rightarrow C' (,)

Translate up 4

- A(1,1) \rightarrow A' (,)
- B(2,5) \rightarrow B' (,)
- C(3,4) \rightarrow C' (,)

Reflect over y = x

- A(1,1) \rightarrow A' (,)
- B(2,5) \rightarrow B' (,)
- C(3,4) \rightarrow C' (,)

Rotate 270° Counter Clockwise

- A(1,1) \rightarrow A' (,)
- B(2,5) \rightarrow B' (,)
- C(3,4) \rightarrow C' (,)

Translate down 7

- A(1,1) \rightarrow A' (,)
- B(2,5) \rightarrow B' (,)
- C(3,4) \rightarrow C' (,)

Reflect over y = -x

- A(1,1) \rightarrow A' (,)
- B(2,5) \rightarrow B' (,)
- C(3,4) \rightarrow C' (,)

Rotate 360°

- A(1,1) \rightarrow A' (,)
- B(2,5) \rightarrow B' (,)
- C(3,4) \rightarrow C' (,)

Name _____

Now that you have found the image for each transformation, try to find a pattern called the generic coordinate or Coordinate Notation for each. Use the below example for help.

EXAMPLE

$$A(1,3) \rightarrow A'(-3,1)$$

Looking at the coordinates for the pre-image and image of each point .

$$B(4,5) \rightarrow B'(-5,4)$$

notice the pattern that the sign of the second value changes and the values also

$$C(2,-6) \rightarrow C'(6,2)$$

switch places. This would be written as $(a,b) \rightarrow (-b,a)$. This is the generic coordinate that will hold true for each of these points A, B and C to A', B' and C'.

Use your answers on the front to find a pattern write the Coordinate Notation for each of the following transformations.

Translate right 3: _____

Translate left 6: _____

Translate up 4: _____

Translate down 7: _____

Reflect over x-axis: _____

Reflect over y-axis: _____

Reflect over $y=x$: _____

Reflect over $y=-x$: _____

Rotate 90° CCW : _____

Rotate 180° : _____

Rotate 270° CCW : _____

Rotate 360° CCW : _____