

Reflections

1 Draw your line of reflection

2 Reflect each point by counting how far away it is from the line of reflection and then plot it on the opposite side of the line of reflection

X axis (x, y) | y-axis (-x, y)

Dilations (Kx, Ky)

K = scale factor

$K > 1$ Bigger

$K < 1$ smaller

1 List preimage points

2 Apply Rule using multiplication

3 Plot new points

$y = x$
switch the order
 $y = -x$
switch order and make both the opposite

Transformations



center NOT origin

1 List preimage points

2 subtract the center from each point

3 Apply the rule

4 Add back the center to the new points

Rotations

Graphing

1 Determine the preimage points

2 Write the new points using the correct rotation rule

$90^\circ \text{CW} / 270^\circ \text{CCW}$
(y, -x)

$180^\circ \text{CW} / 180^\circ \text{CCW}$
(-x, -y)

3 Plot your new "image" points
 $270^\circ \text{CW} / 90^\circ \text{CCW}$
(-y, x)

Translations "slide or shift"

up $\rightarrow y + \underline{\quad}$

down $\rightarrow y - \underline{\quad}$

left $\rightarrow x - \underline{\quad}$

right $\rightarrow x + \underline{\quad}$

* To determine what translation occurred, you subtract the image points from the preimage points