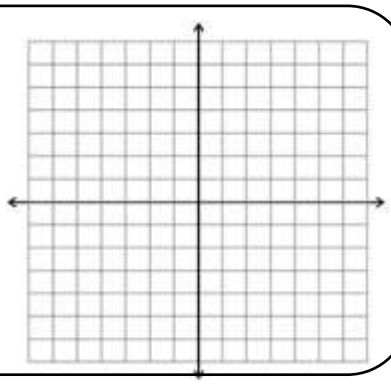
# Reflections

*A reflection is a _____ across a _____ of reflection that takes a pre-image input and creates an image output so that the segments connecting corresponding points are _____ by the reflection line.*

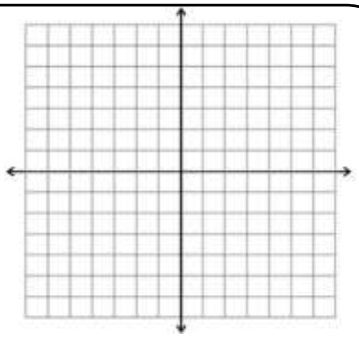
Reflection across x-axis
$(x, y) \rightarrow (\quad , \quad)$

Pre-image Image



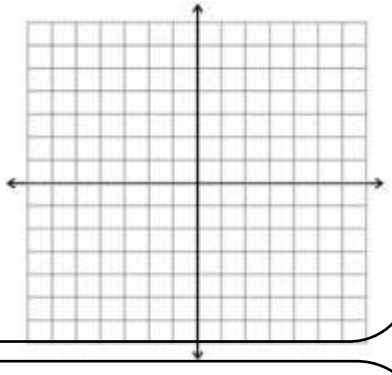
Reflection across y-axis
$(x, y) \rightarrow (\quad , \quad)$

Pre-image Image



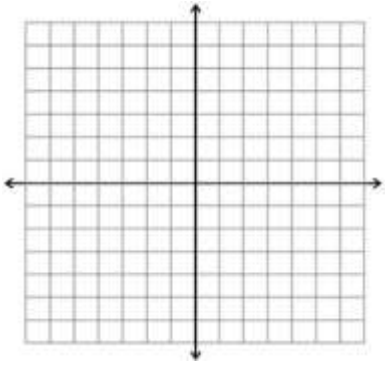
Reflection across $y = x$
$(x, y) \rightarrow (\quad , \quad)$

Pre-image Image



Reflection across $y = -x$
$(x, y) \rightarrow (\quad , \quad)$

Pre-image Image



Reflection across any vertical or horizontal line
Distance between pre-image and line of reflection equals Distance between image and line of reflection