

# Transformations Class Project

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1. Draw a figure in the first quadrant. It may be a figure of your choosing. It must be school-appropriate and it must have at least 10 points.
2. Rotate the pre-image into the second quadrant.
3. Reflect it into the third quadrant.
4. Translate it into the fourth quadrant.
5. Fill in the table below as you go.
6. Color your images

Note: If you have more than 10 points, that's ok. Just choose 10 points to use for this table.

Pre-Image	Rotate to Quadrant II	Reflect to Quadrant III	Translate to Quadrant IV
	Rule: $(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$	Rule: $(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$	Rule: $(x, y) \rightarrow (\underline{\quad}, \underline{\quad})$
( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )
( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )
( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )
( <u>  </u> , <u>-  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )
( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )
( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )
( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )
( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )
( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )
( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )
( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )	( <u>  </u> , <u>  </u> )

Reflection questions:

1. When rotating your pre-image into quadrant II, how many degrees did you choose to use and why did you choose that number?
2. What axis did you reflect your pre-image over to get it into quadrant III?
3. How did you translate your pre-image into quadrant IV? Which directions was it translated in? How did you decide how far to move it?