

Chapter 4 Quiz Prep

1. Translate a given figure in the coordinate plane (2 points)
 - a. $(x, y) \rightarrow (x + h, y + k)$
2. Determine the vector used to translate a point P to its image point P' (1 point)
3. Reflect a given figure in the coordinate plane in the lines... (6 points)
 - a. x-axis
 - i. $(x, y) \rightarrow (x, -y)$
 - b. y-axis
 - i. $(x, y) \rightarrow (-x, y)$
 - c. vertical and horizontal lines
 - i. use trace paper, MIRA, or the counting method
 - d. $y = x$
 - i. $(x, y) \rightarrow (y, x)$
 - e. $y = -x$
 - i. $(x, y) \rightarrow (-y, -x)$
4. Determine whether a figure has line symmetry (2 points)
 - a. If so, be able to draw ALL lines of symmetry in the figure
5. Rotate a given figure in the coordinate plane about the origin... (6 points)
 - a. 90°
 - i. $(x, y) \rightarrow (-y, x)$
 - b. 180°
 - i. $(x, y) \rightarrow (-x, -y)$
 - c. 270°
 - i. $(x, y) \rightarrow (y, -x)$
 - d. Remember, the rotation is COUNTERCLOCKWISE unless otherwise stated!
6. Determine whether a figure has rotational symmetry (4 points)
 - a. If so, be able to determine the SMALLEST angle of rotational symmetry the figure has
7. Compositions of Transformations (4 points)
 - a. Be able to do a combination of ANY two above.
 - i. For example: a reflection then a translation, or a rotation then a reflection, etc.

EXTRA CREDIT (up to 2 points): memorize and write down ALL rules above for translations, reflections, and rotations

****Remember, you can use a sheet of trace paper on the quiz. I will provide it for you if you want to use it. You can also use the MIRAs.**

****Remember to highlight your images! ☺**