

Name _____

Period _____

Transformations Project

Directions:

Use a full page of graph paper to design a themed project of your choice on transformations. Create a scene from the real world or a fictional one. An example of a scene could be the underwater world which could include sea creatures, anemones, mermaids and things above the water like a pirate ship, clouds, and birds. Your scene must show your understanding of the different types of transformations you have to master for 8th grade (see below). Do not include more than one or two items that are NOT transformations.

Requirements:

1. Full size page of graph paper. Feel free to enlarge this paper but it must be at least 8 ½ x 11 inches in size.
2. Use and label all 4 quadrants (do this in the upper corner so it doesn't interfere with your scene).
3. Your scene must include the following types of transformations:
 - Translations – Two pairs of translations. Apply different rules to both. For example: $(x, y) \rightarrow (x + 8, y - 12)$
 - Reflections – 1 across either the x or y-axis
1 across a line of your choice (ex: $y = 2$)
 - Rotations – Two pairs of rotations. You may not do a 360 degree rotation. Apply different rules to both.
 - Dilations – Two enlargements AND 2 reductions
4. Create a name for your scene.
5. Complete and turn in coordinates for pre-image and image of all shapes on project.
6. The entire project must be neatly completed and colorful because they will be displayed in the hall!

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Transformations Project
Grading Rubric

1. Full size page of graph paper was used. _____/ 2
2. Student named his/her scene . _____/ 2
3. Student used and labeled all 4 quadrants. _____/ 4
4. Student included the following transformations:
 - Translations (two) _____/ 4
 - Reflections (two)
 - 1 across either the x or y-axis _____/ 2
 - 1 across a line the student chose _____/ 2
 - Rotation
 - 1 - 90 ° or 270 ° rotation _____/ 2
 - 1 - 180 degree rotation _____/ 2
 - Dilations
 - Enlargements _____/ 4
 - Reductions _____/ 4
5. Student completed/turned in all coordinates for images. _____/10
6. The entire project was neatly completed and colorful. _____/10

Total Score: _____/48

Comments:



