Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Transforming Pi**

**Directions:** Plot the following points. Connect them using only vertical and horizontal lines.

These points will create your pre-image.

(-10, 5) (-8, 12) (-3, 5) (-12, 14)

(-11, 5) (-6, 12) (-4, 5) (-12, 12)

(-11, 6) (-6, 4) (-4, 12) (-10 12)

(-12, 6) (-2, 4) (-2, 12) (-10,5)

(-12, 4) (-2, 6) (-2, 14)

(-8, 4) (-3, 6) (-7, 14)

**Transformation #1:** **Reflection**

• Across the x-axis

• Label “Reflection across the x-axis” below your reflected image

**Transformation #2: Translation**

• Choose your translation!

• You must translate it a certain amount to the right and down.

• Make sure the new image does not overlap the pre-image.

• Label “Translation (x # , y #) above your translated image

**Transformation #3: Dilation**

• On a separate piece of graph paper, dilate pre-image with a scale factor or 2.

• New graph paper does not need to have an x and y axis

• Hint: You may want to figure out how long and tall your image will be before you begin redrawing it

**Rubric:**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Reflection** | **Translation** | **Dilation** |
| **Correct Transformation** | **1 2 3** | **1 2 3** | **1 2 3** |
| **Transformation Labeled** | **1 2 3** | **1 2 3** | **1 2 3** |
| **Creativity** | **0 1 2** | **0 1 2** | **0 1 2** |

Total: \_\_\_\_\_/24

This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-sa/4.0/>.