## the tr aNsiti

 fish
## Directions:

You are given 8 sets of coordinates. When the points are connected, a fish forms.

Your task is to plot the original fish, along with four others that meet the following criteria:

- Translation
- Reflection
- Rotation
- Stretch or Shrink

You must put the points for each fish in matrix form and show ALL work.

Next complete one of the following two tasks. You may complete both of them for five extra bonus points:

1. Color and decorate your picture. Make it look like an actual scene from a fish bowl, aquarium, etc. It must show that effort was put into it. i.e. you cannot scribble with one or two colors last minute.
2. Write a story about your fish. It must be at least 125 words and fully explain the life of the fish as it went through each transition.

## rubric

| Description | Points Possible | Points <br> Earned |
| :---: | :---: | :---: |
| The student draws the original fish, along with the others (translation, reflection, rotation, stretch/shrink) | 25 |  |
| The student produces matrices for each fish, including the original one | 15 |  |
| The matrices for each fish are correct, and the student shows how they arrived at the new matrix. This can be a written explanation or by showing the calculations they made | 15 |  |
| The student does one of the following: <br> 1. Colors their fish picture. They add detail showing that they put time and effort into their product. <br> 2. Writes a story about the fish. It is at least 125 words and gives a legitimate reason for each transition. | 20 |  |
| Total Points | 75 |  |

