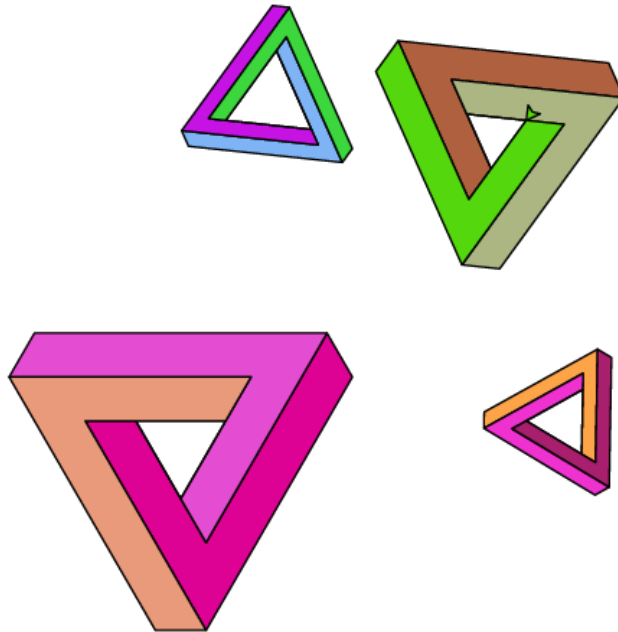# CSCI 111, Bonus Lab 5
Penrose Turtle

Individual work: All work must be your own. Do not share code with anyone other than the instructor and teaching assistants. This includes looking over shoulders at screens with the code open. You may discuss ideas, algorithms, approaches, *etc.* with other students but NEVER actual code.

Penrose triangle: Described as the essence of paradox, the Penrose triangle, seen above, is a favorite of mine. Write a program using turtle graphics to make a Penrose triangle.

The drawing consists of three identical shapes, each of which can have a different fill color. Also, the sizes of the hole and the width of the bar should be parameters. Finally, whether to do a left twist or a right one should be provided as a boolean. So, the main routine should look like this:

```
def penrose(hole_size, bar_size, left_twist, colors):
    for i in range(3):
        penrose_arm(hole_size, bar_size, left_twist, colors[i])
```

where colors is an array of colors in turtle graphics format.

The current position and orientation of the turtle will determine where and at what angle the triangle is drawn.

The final position and orientation of the turtle after each arm should be ready for the next arm. The turtle will thus end up right where it started at the end (ready to draw the first arm again).