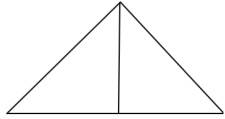


## Math 130 Worksheet 6: Patterns with triangles.

You have a triangle with 45, 45, and 90 degree angles!

Trace around your triangle. Now flip it along an edge and trace again, you'll get something that looks like this:



(or maybe a little different, if you flipped it over the long side)

Repeat the process, flipping over any side and then tracing again. Repeat again many times, until you have a good idea of what is going on.

### Questions:

- (1) What pattern do you get?
- (2) Can you, by a sequence of flips, move your triangle from the starting position to any other point on the plane? Why or why not?
- (3) For which other triangles does a similar phenomena occur? (i.e. when you repeatedly flip the triangle over its edges, the same kind of thing happens). How do other triangles behave the same or differently? Why?  
If you would like to borrow a random triangle to experiment with, you may.