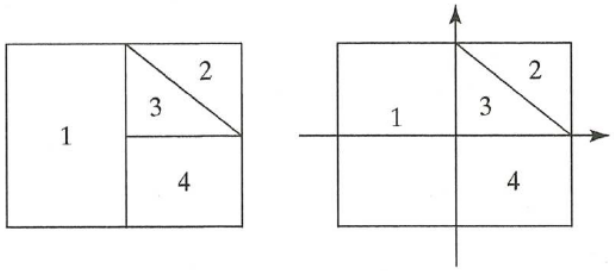
Lab 0

To Do:

**5.44 (*Monte Carlo simulation*) A square is divided into four smaller regions as shown below in (a). If you throw a dart into the square 1,000,000 times, what is the probability for a dart to fall into an odd-numbered region? Write a program to simulate the process and display the result.

(*Hint*: Place the center of the square in the center of a coordinate system, as shown in (b). Randomly generate a point in the square and count the number of times for a point to fall into an odd-numbered region.)



(a) (b)

Hint:

To generate a random point, generate a random number x between -1 and 1 and a random number y between -1 and 1 with two points of precision ((100-rand()%201)/100.0).

Submit:

When you are done call me over and I will have a look at it