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//This program simulates a dart throwing simulation to approximate the value
of pi.
import java.util.Scanner;
import java.text.DecimalFormat;
import java.util.Random;

public class DartThrowingSimulation
{
    public static long hits = 0;
    public static long misses = 0;
    public static long trials = 0;

    public static void main(String[] args)
    {
        DecimalFormat d = new DecimalFormat("###.0000000");

        System.out.println("Select number of trials:");
        Scanner _scan = new Scanner(System.in);
        trials = _scan.nextLong();

        Random rGen = new Random();

        for(int i = 1; i <= trials; i++)
        {
            double yCoord = rGen.nextDouble();
            double xCoord = rGen.nextDouble();

            if(Math.pow(Math.pow(yCoord, 2) + Math.pow(xCoord, 2),
0.5) <= 1)
            {
                hits++;
            }
            else
            {
                misses++;
            }
        }
        double pi1 = (100 * hits);
        double pi2 = (25 * hits + 25 * misses);
        System.out.println("Approximation of pi: "+d.format(pi1 /
pi2));
    }
}
//Made by Ivan K.

```