

Homework 5:

- 1) Use rejection sampling to evaluate the area of a circle ($r=1$)
 - a) How many samples do you need?
 - b) What is the area?
 - c) Can you compute the area using exhaustive integration?
- 2) Generalize your approach to N-dimensional ball. Where N is close to 10.
It might be hard to go to high up in dimension.
 - a) How many samples do you need?
 - b) What is the volume and how well does it agree with
 - c) Can you compute the area using exhaustive integration?

The volume for a N-dimensional ball

http://en.wikipedia.org/wiki/Volume_of_an_n-ball