PM 520 Project #1

Due at 1pm on Thurs 1/29

- Write code to estimate pi using one of these two (circles, needles, or another) Monte Carlo methods.
- Show how the performance of the estimator varies as a function of:
  - Circle size, if you use the circle method (assuming the square has sides of length 2),
  - Needle length, if you use Buffon's needle (assuming the lines are a distance 1 apart).
- What to turn in:
  - Write up a description of your method and then show the results.
  - Include a script showing your (clearly commented) code.
  - The whole thing should be about 2-3 pages + code.
  - Projects will be submitted via Blackboard. It's important that your code be easy for us to run, so it's probably best to submit two files, one with your analysis, and another with your code. (If you're interested in learning how to seamlessly integrate R code with figures and text check out the R package knitr.)
- We will grade this one, but it is non-examinable.