

Homework 9, Stat/Ma 320 Fall 2004

Due Nov. 4

1. Use the applet at <http://www.ms.uky.edu/~mai/java/stat/buff.html> to get your own estimate of π .
 - (a) use a 'number of tries' between 15 and 50 and see if you can get the same estimate of π by actually counting how many crossings. (hint: the proportion of crossing is approx. $2/\pi$)
 - (b) Use a 'number of tries' larger than 5000 to get a better estimate, report your estimate of π .(If you have problem with the above applet, try another one at

http://www.dartmouth.edu/~chance/teaching_aids/books_articles/probability_book/bookapplets/chapter2/BufonsNeedle/BufonsNeedle.html
2. If X is an exponential random variable with parameter λ_1 and Y is an exponential random variable with parameter λ_2 and they are independent. Find the probability $P(X > Y)$.