CS 321: Numerical Methods in Computational Molecular Biology

Homework 2

Due: Thursday, Sept 8 2005 at the beginning of the section

Problem 1

A radioactive substance *X* decays "continuously" at a constant rate of $3*10^{-3}$ % per year. What is the probability for a single substance *X* atom to decay in the next 100 years? (* note – see slide 6 and its side notes).

Problem 2

Using a Uniform random variable *U* on the interval (0,10), how would you express

- The Uniform random variable *Y* on the interval (-1,1)?
- The Exponential random variable *W* with parameter $\lambda=2$?