CS5114 Spring 2014 Homework Assignment 4
Due Thursday, February 20 at 11:00pm
50 points

1. Manber 6.25

2. My MP3 player contains 1000 songs, and the average length for a song is 3 minutes (for a total of 3000 minutes or 50 hours of playtime). I like to use the "random" play feature to play songs at random. Given that I always play songs a random, what is the expected length of time that it takes before every song has been played at least once? You should come up with and solve a summation or recurrence relation to model this problem.

3. Using a findpivot function of `pivot = (i+j)/2` (where i and j are the subarray bounds), provide a permutation of the values 0 to 7 that yields worst case behavior for Quicksort. Explain how you came up with this permuation.