Homework Assignment 3

Question 1: The time to fixation of an allele is defined as the number of generations that it takes to go from frequency 1/2N to 1.0. Using the drift2() function that we wrote in the lecture 7 notebook we are going to use simulations to derive the relationship between time to fixation and population size. Using a population size of N = 10, 50, 100, 500, start replicate populations off with an allele at frequency 1/2N, as if it were a new allele, and run them for long enough that alleles go to fixation or loss. Then summarize how many generations it takes for fixation to occur. Be sure to ignore loss of the allele. Plot that simulated average fixation time versus population size. What do you notice?