



One would expect the mean to be large if both  $p$  is small and  $q$  is large, since this would tend to make the first sequence long, and the second sequence to contain many heads. On the other hand, if  $p$  is large and  $q$  is small, one expects the mean to be small since then the first sequence is short and the second sequence contains few heads. Similar reasoning leads one to expect the same for the table of variances. As a sanity check, observe that both of your tables have their maximum in the upper right corner and minimum in the lower left corner.

This assignment is about the same level of difficulty as lab3, but nevertheless will take some time to get right, so please start early.