

MATH336 - HW #16

1. Out of 40 trials...

- AA was the only remaining population in 12 instances
- aa was the only remaining population in 9 instances
- There were no cases in which only the Aa population remained

2. Yes, in all cases where $a = \frac{(b+c)}{2}$, no matter what b and c were valued at, the number of infected individuals (1st output) tended to 0 and the number of susceptible individuals got close to 1 (2nd output). As soon as $a > \frac{(b+c)}{2}$, infected individuals started showing up in very small amounts and then increased from there as a increased. However, even when a was extremely large, the proportion of infected individuals never reached 100%, and in fact converged to a value between 0.35 and 0.45 depending on the parameters, b and c .