7a) **Simulation without drug**
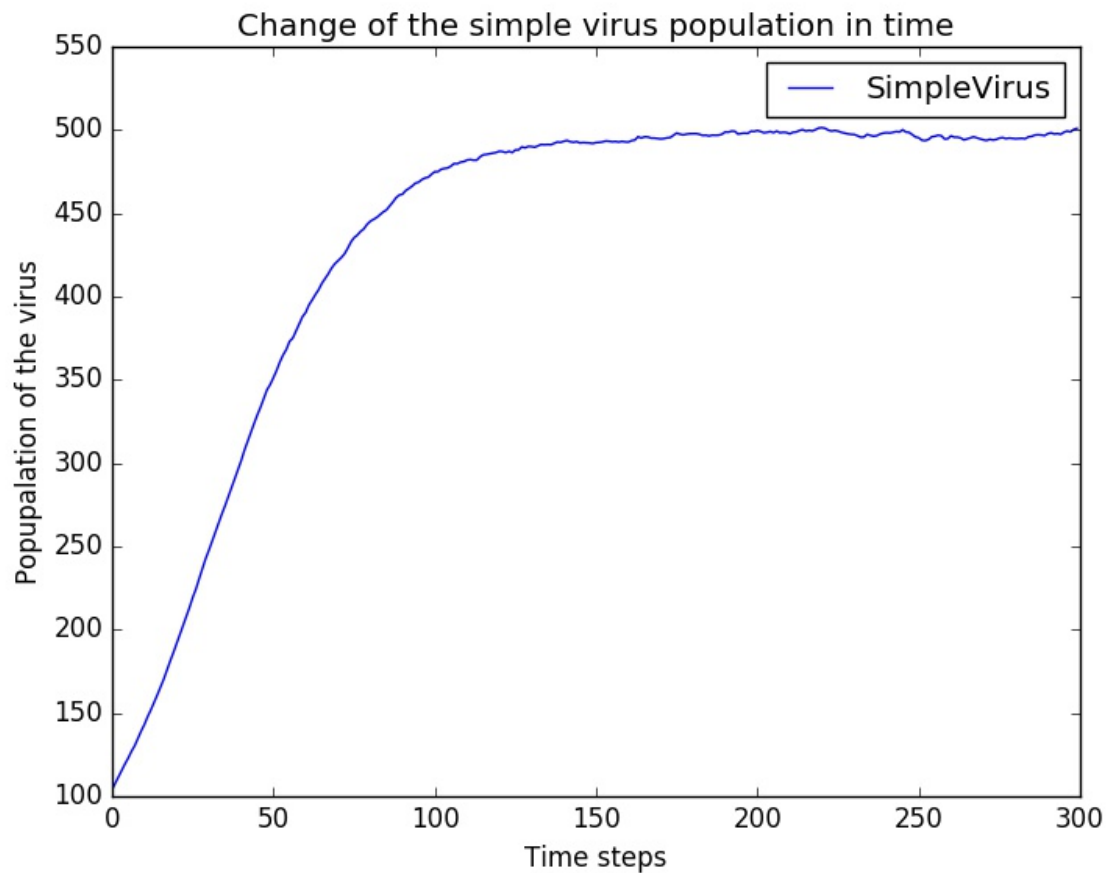
Graph of 100 trials of simulation.

It takes around 150 steps for the virus population to stop growing.

7b) **Probabilities**

1. You flip a fair coin 3 times
    1) Three heads: A : {H,H,H} – 1/8
    2) The sequence head, tail, head: A : {H,T,H} – 1/8
    3) Any sequence with 2 heads and 1 tail – 3/8
    4) Any sequence where the number of heads is greater than or equal to the number of tails – 4/8
2. What is the probability of rolling a Yahtzee! on the first roll? – (1/6)**4