- 1. Before introducing antibiotic total population will be always much higher than resistant population due to the difference introduced in is\_killed function non-resistant bacteria probability of dying is divided by 4. In Simulation A it grows very rapidly, due to the relatively high birth probability, in simulation B it is decreasing after ~50 timesteps.
- 2. Before introducing antibiotic number of resistant bacteria is slowly dropping after 30-40 timestep and it is much lower than number of total bacteria.
- 3. After introducing antibiotic total number of bacteria is dropping rapidly and getting equal to the number of resistant bacteria, due to the way update function in TreatedPatient was implemented.
- 4. Resistant population is now being equal to total population of bacteria. With lower birth probability (17%) beetwen 200-250 step it is reaching 0 (simulation B). In simulation A (birth probability = 30%) it is slightly increasing after antibiotic introduction.

95% Interval, Simulation A: total\_pop:

(200.58, 7.685817554118755)

95% Interval, Simulation A: resistant\_pop:

(200.58, 7.685817554118755)

95% Interval, Simulation B: total\_pop:

(0.1, 0.19403010075758878)

95% Interval, Simulation B: resistant\_pop:

(0.1, 0.19403010075758878)