**Parameters**

beta = 0.214 in best case scenario / beta = 0.715 in worst case scenario

gamma = 1/14 or 0.071 #recovery rate (1/duration infection)

birth = 120/10000/365 or 0.00003 #birth rate (per capita)

death = 120/10000/365 or 0.00003 #all-cause mortality rate

omega = 1/(30.5\*3) or 0.011 # waning immunity

t\_lat = 5 # latent period from E -> sigma=1/t\_lat = 0.2 will be the daily rate from E to I

**Answer keys:**

When R0=3 (or beta is 0.214),

Cumulative number of infections 300 days after the outbreak is 18142.4

Size of the epidemic peak: 3239.3 (counting both E and I) or 2354.8(counting only I)

Timing of the epidemic peak: 120 days (counting both E and I) or 124 days (counting only I)

When R0 = 10 (or beta is 0.715),

Cumulative number of infections 300 days after the outbreak is 29708.3

Size of the epidemic peak: 6773.1 (counting both E and I) or 4630.9 (counting only I)

Timing of the epidemic peak: 43 days (counting both E and I) or 47 days (counting only I)