1 Problem

SIR model for a single class of population with respect to time t and variables $[S, I, R]$ for constant population

$$\frac{dS}{dt} = -\beta SI \tag{1}$$
$$\frac{dI}{dt} = \beta SI - \gamma I \tag{2}$$
$$\frac{dR}{dt} = \gamma I \tag{3}$$

- $[S, I, R]$: values of the variables (ratio of suceptibles, infectious and recovered fraction of the population)
- t: time (not used because autonomous ODE)
- β : transmission coefficient.
- γ : healing rate.

2 Results