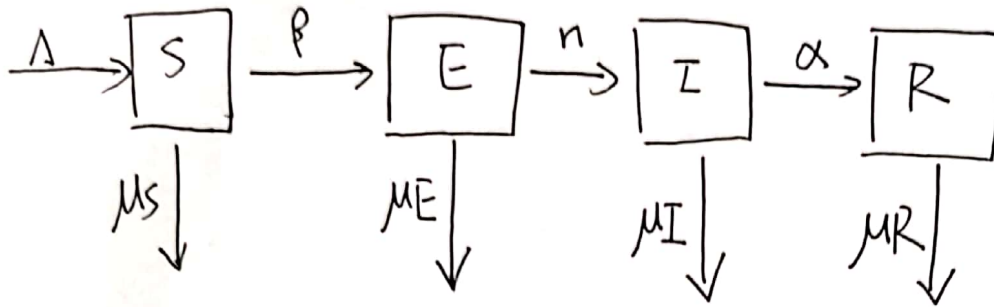


Part 3a

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$$\frac{ds}{dt} = \Lambda - \beta SI - \mu_S$$

Λ : birth rate

μ : death rate

$$\frac{dE}{dt} = \beta SI - nE - \mu_E$$

$$\frac{dI}{dt} = nE - \alpha I - \mu_I$$

~~scribbled out text~~

$$\frac{dR}{dt} = \alpha I - \mu_R$$

$$\frac{dN}{dt} = (\Lambda - \mu)N$$