$v := v0 - (u - u0) + \left(\frac{1}{R0}\right) \cdot \ln\left(\frac{u}{u0}\right);$

$ICs := \{u0 = 0.8, v0 = 0.2\};$

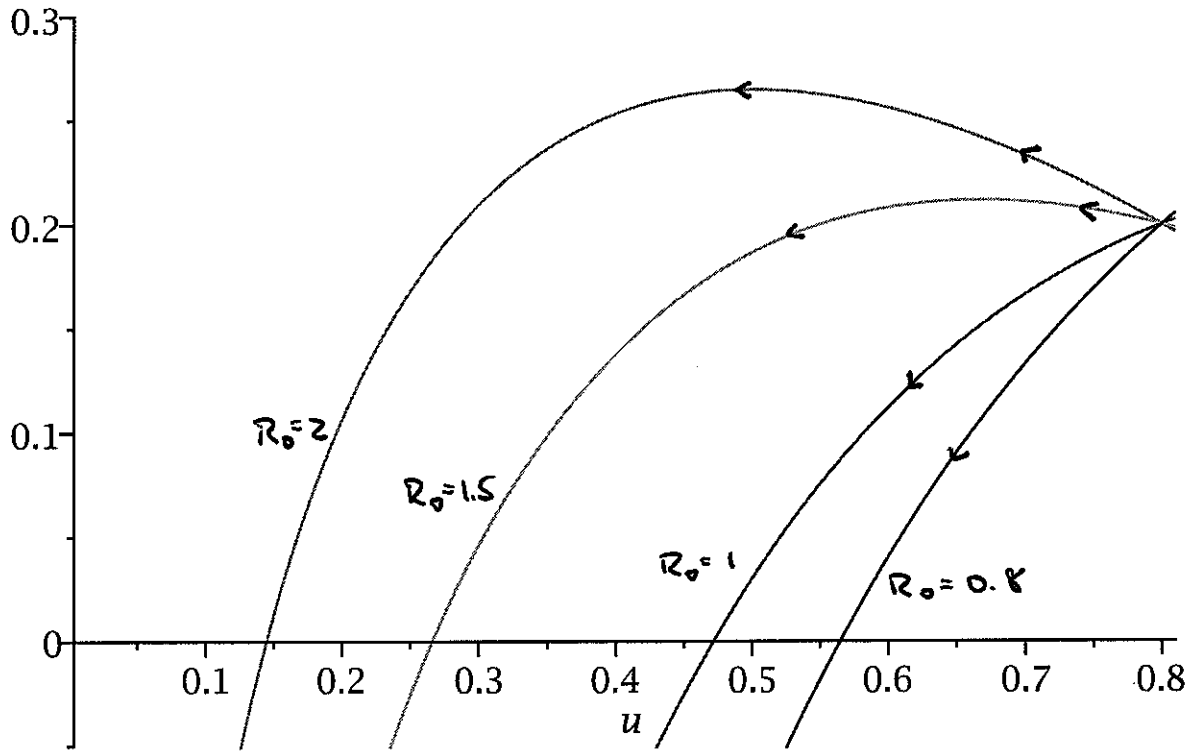
$R0crit = \frac{1}{0.8};$

$$v0 - u + u0 + \frac{\ln\left(\frac{u}{u0}\right)}{R0}$$

$$\{u0 = 0.8, v0 = 0.2\}$$

$$R0crit = 1.250000000 \quad (1)$$

plot({*subs*(*ICs* **union** {*R0* = 2}, *v*), *subs*(*ICs* **union** {*R0* = 1.5}, *v*), *subs*(*ICs* **union** {*R0* = 1}, *v*), *subs*(*ICs* **union** {*R0* = 0.8}, *v*)}, *u* = 0.01 ..0.81, -0.05 ..0.3);



The TRAJ EQU $\frac{dv}{du}$ does not give time information.

However, from $\frac{du}{dt} < 0$ (always) we know u decreases.

∴ As t ↑, move on traj from right to left.

For $R_0 = \frac{8}{8} = \frac{2}{\text{and } 1.5}$: V increases then decreases.

$= \frac{1}{\text{and } 0.8}$: V decreases.