Mon, Feb 17 Lecture 8

Romeo & Juliet

$R(t)$: $\dot{R} = \_\_ R + \_\_ J$ + ? (constants)

$J(t)$: $\dot{J} = \_\_ R + \_\_ J$ + ?

$$\begin{bmatrix} \dot{x} \\ \dot{y} \end{bmatrix} = \underbrace{\begin{bmatrix} a & b \\ c & d \end{bmatrix}}_{\text{constants}} \begin{bmatrix} x \\ y \end{bmatrix} + \underbrace{\begin{bmatrix} \\ \end{bmatrix}}_{\text{constants.}}$$

+ve : love
-ve : hate

R : Romeo's love / hate for Juliet
J : Juliet's love / hate for Romeo

rate of change of R depends on value of R
" " " J

NOT on rate of change of R, J.

"Romantic styles"

$\dot{x} = +x + y$
$\dot{x} = +x - y$
$\dot{x} = -x + y$
$\dot{x} = -x - y$

x : one lover
y : other one