$x'' + ax' + bx = 0$ $\quad y = x', \; z = x$

$y' = x'' = -ax' - bx = -ay - bz$

$z' = y$

$$\vec{x}' = \begin{pmatrix} -a & -b \\ 1 & 0 \end{pmatrix} \vec{x} = \begin{pmatrix} y \\ z \end{pmatrix}$$

2da Ley de Newton

$F = ma \quad x(t) \quad x' = V \quad x'' a$

$mx'' - F = 0 \Rightarrow x'' - \frac{F}{m} = 0.$