

$$\begin{aligned} \frac{d^2x}{dt^2} + \frac{dx}{dt} + \frac{dy}{dt} &= 0 \\ \frac{d^2y}{dt^2} + \frac{dy}{dt} - 4\frac{dx}{dt} &= 0 \end{aligned}$$

$$x(0) = 1, \quad x'(0) = 0, \quad y(0) = -1, \quad y'(0) = 5$$

