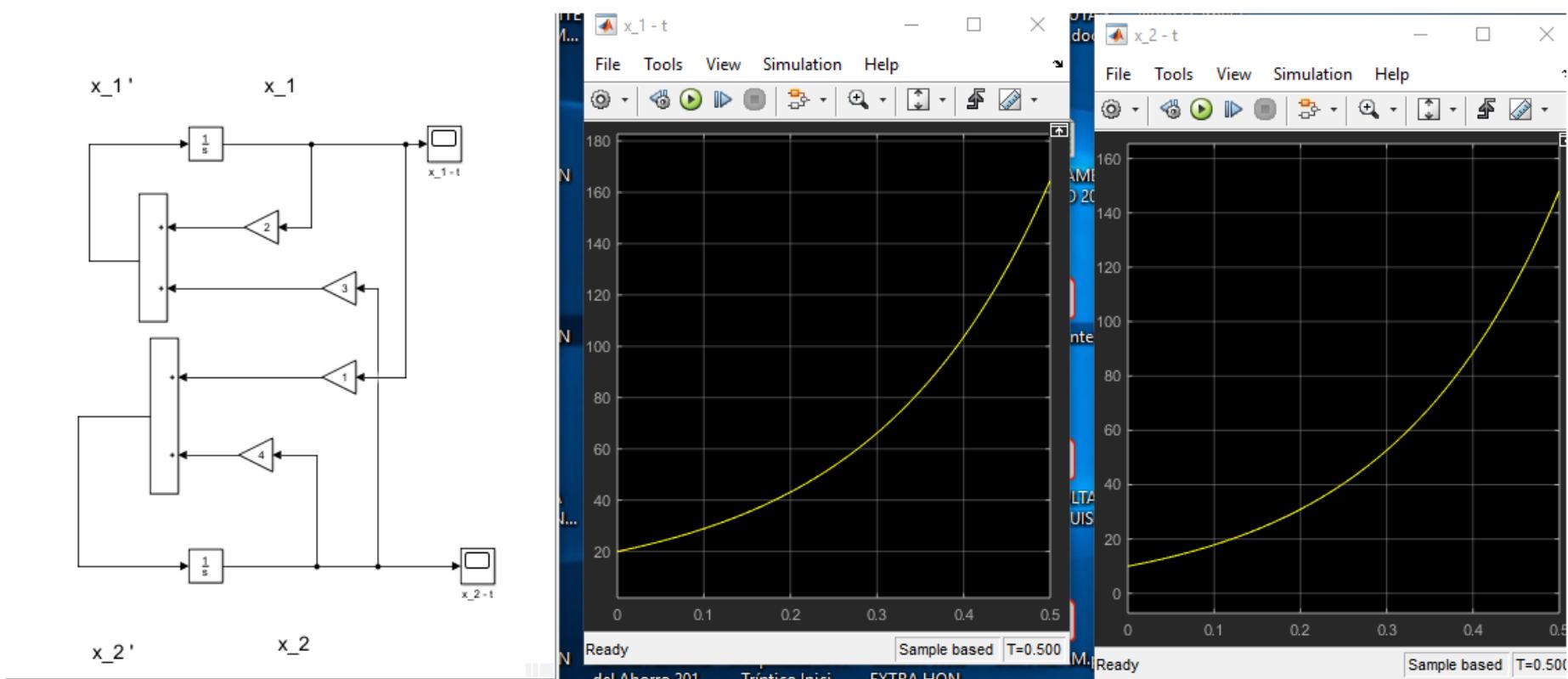


$$\frac{dx_1}{dt} = 2x_1 + 3x_2 \quad x_1(0) = 20$$

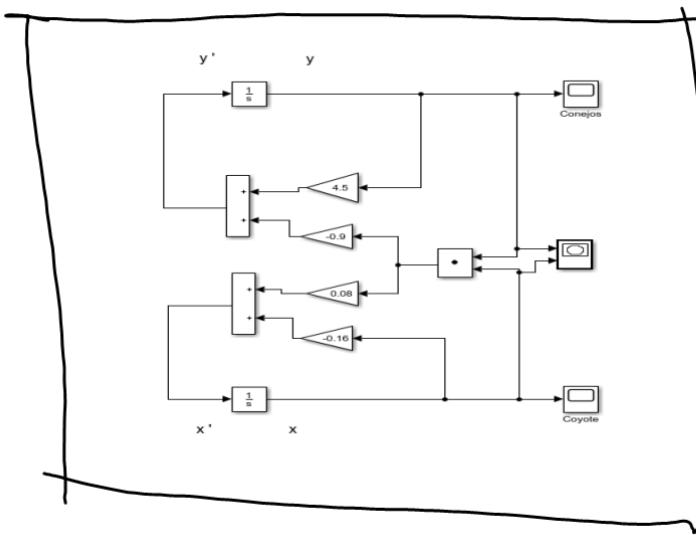
$$\frac{dx_2}{dt} = x_1 + 4x_2 \quad x_2(0) = 10$$

$$x_1(t) = \frac{25}{2} e^{5t} + \frac{15}{2} e^t$$

$$x_2(t) = \frac{25}{2} e^{5t} - \frac{5}{2} e^t$$



PRESA - DEPREDADOR



$$\begin{aligned} \frac{dx}{dt} &= -0.16x + 0.08xy \\ \frac{dy}{dt} &= 4.5y - 0.9xy \end{aligned} \quad \left. \begin{array}{l} x \rightarrow \text{coyote} \\ y \rightarrow \text{conejo} \end{array} \right\} m$$

