6.3.1 $\dot{x} = x - y \quad \dot{y} = x^2 - 4$

let $\dot{x} = 0$, $\dot{y} = 0$ get $y = x = \pm 2$.

$$A = \begin{pmatrix} 1 & -1 \\ 2x & 0 \end{pmatrix}$$

$$A_1 = \begin{pmatrix} 1 & -1 \\ 4 & 0 \end{pmatrix} \quad D = 4 \quad T^2 - 4D < 0. \quad T = 1$$

$$A_2 = \begin{pmatrix} 1 & -1 \\ -4 & 0 \end{pmatrix} \quad D = -4 \quad T = 1$$

$$\lambda_{1,2} = \frac{1 \pm \sqrt{1+16}}{2}$$