6.3.1 $\dot{x} = x - y$ $\dot{y} = x^2 - 4$ when $x = -2, y = -2$.

when $x = 2, y = 2$.

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

$$A = \begin{pmatrix} 1 & -1 \\ 2x & 0 \end{pmatrix}$$
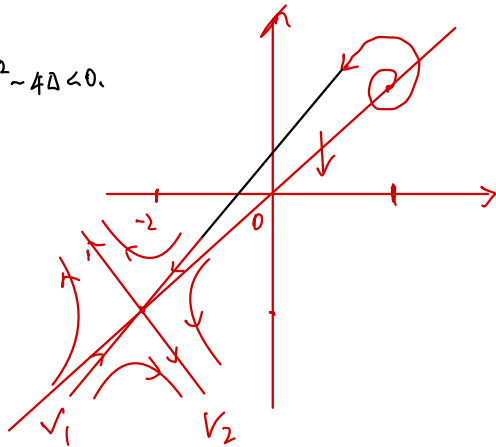
$(2.2) A_1 = \begin{pmatrix} 1 & -1 \\ 4 & 0 \end{pmatrix}$ $\Delta = 4$ $\tau^2 - 4\Delta < 0$.

$\tau = 1$

$(-2,-2) A_2 = \begin{pmatrix} 1 & -1 \\ -4 & 0 \end{pmatrix}$ $\Delta = -4$

$\tau = 1$

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

$\therefore \lambda_2 < 0 < \lambda_1 \therefore$ $V_2 = \begin{pmatrix} \frac{-1 - \sqrt{17}}{8} \\ 1 \end{pmatrix}$ $V_1 = \begin{pmatrix} \frac{-1 + \sqrt{17}}{8} \\ 1 \end{pmatrix}$