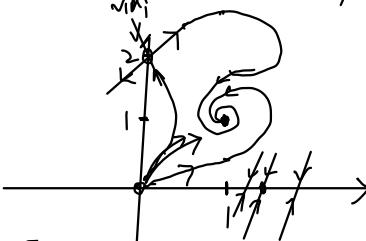


$$6.4.2. \quad \dot{x} = x(3 - 2x - y) = 0, \quad \text{get } (0, 2), (1, 1), (\frac{3}{2}, 0) \text{ and } (0, 0),$$

$$\dot{y} = y(2 - x - y) = 0.$$

$$A = \begin{pmatrix} -2x-y+3 & -x \\ -y & -x-2y+2 \end{pmatrix}$$

$$(0, 0) A = \begin{pmatrix} 3 & 0 \\ 0 & 2 \end{pmatrix} \lambda = 3, 2$$



$$(0, 2) A = \begin{pmatrix} 1 & 0 \\ -2 & -2 \end{pmatrix} \lambda = 1, -2$$

$$(1, 1) A = \begin{pmatrix} 0 & -1 \\ -1 & -1 \end{pmatrix} L = -1 \quad \alpha = \frac{L}{2} = -\frac{1}{2} < 0$$

$$\Delta = 1 \quad \therefore \text{stable spiral}$$

$$(\frac{3}{2}, 0) A = \begin{pmatrix} 0 & -\frac{3}{2} \\ 0 & \frac{1}{2} \end{pmatrix} L = -\frac{1}{2}$$

$$\Delta = 0 \quad \lambda = 1, 0.$$