Investigate the behavior of the system

$$x' = x(2 - x - y) \tag{1}$$
$$y' = y(x - 1) \tag{2}$$

in the plane $(t, x) \in \mathbb{R}^2$. In particular:

i) Identify the curves $x' = 0$, $y' = 0$ and the areas where $x' > 0$, $x' < 0$, $y' > 0$ and $y' < 0$, respectively.

ii) Find (all) the equilibrium points.

ii) Sketch the dynamics (let the picture be at least 10x10 cm). In particular, outline the dynamics on the coordinate axes ($x = 0$ or $y = 0$).