Math 6345 Advanced ODEs
Homework 4

1. Given the systems

$$
\begin{array}{lll}
(i) & \dot{x} = x^2 - y^2 - 1, & \dot{y} = 2y, \\
(ii) & \dot{x} = 1 - x, & \dot{y} = xy - x, \\
(iii) & \dot{x} = x(3 - x - y), & \dot{y} = y(x - y - 1),
\end{array}
$$

determine all critical points and classify them.

Due. Tues. Oct. 27, 2020