3. Analysis on Van Der Pol's equation

$$x''(t) - \left(1 - x(t)^2\right) x'(t) + x(t) = 0$$

This equation is a second-order nonlinear ordinary differential equation.

About fixed points and stability, characteristics equation is given by $\lambda_\mp = (\mu \mp \sqrt{\mu^2 - 4})/2$, and we can solve the eigen values.