HW 7

1. Consider $x' = Ax$ where A is an invertible real $n \times n$ matrix all of whose eigenvalues have real parts ≤ 0 with at least one having real part $= 0$. Prove that it is not asymptotically stable but it is Liapunov stable.

2. Find the equilibria and solve $-x'' + xx' = 0$ explicitly.