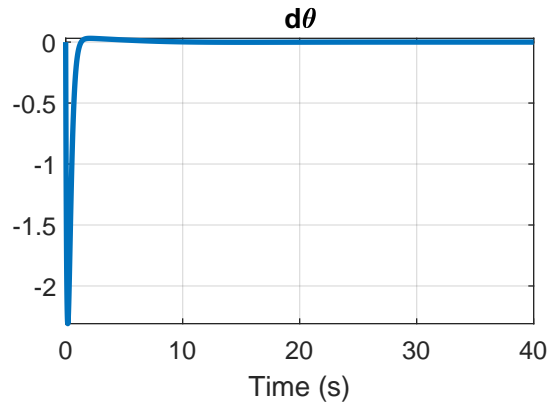
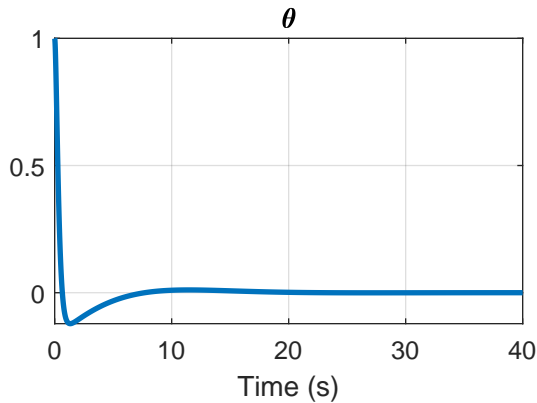
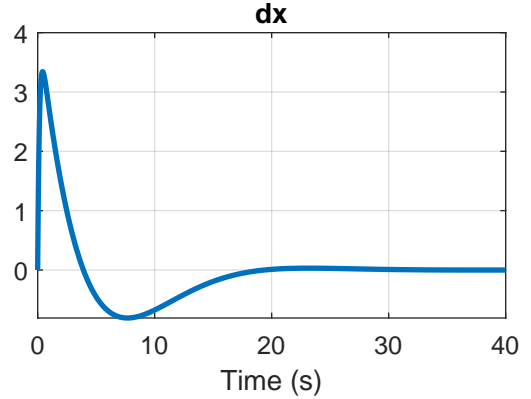
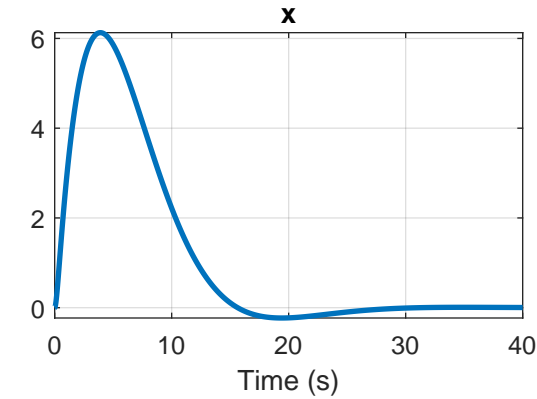


Problem 3 - Infinite Horizon LQR



2.1: $K_{LQR} = [-1 \ -3.0315 \ -69.603 \ -13.493]$

$\text{eig}(\tilde{A}) = [-0.44074 + j0.37095, -0.44074 + j-0.37095, -4.4439 + j0, -6.652 + j0]$

2.2: $K_{LQR} = [-0.2582 \ -1.3678 \ -63.703 \ -11.99]$

$\text{eig}(\tilde{A}) = [-0.21195 + j0.20273, -0.21195 + j-0.20273, -5.0393 + j0, -5.843 + j0]$