

```

commandwindow
clear all
clc
format bank
s=tf('s')
Gp=3*0.5*(1/3)/((s+1)*(s+(1/2))*(s+(1/3)))
Kc=[0:0.0001:3]
rlocus(Gp,Kc);
[Ps,Kc]=rlocus(Gp,Kc);
[Kc', Ps']

% comment on output of this code
% running the code above gives output for Kc and Ps. the following was
observed,
% 1. Kc values didn't start from zero in the commandwindow because
% the step size given is so small but checking the workspace and clicking
% on values of Kc, the initial value of Kc is shown
% 2. if the step size was increased to 0.001 and we run this code,
% the initial values of Kc are shown on the commandwindow.
% 3. All the poles are negative, telling us that the system is stable
% all through from the initial value of Kc (0) down to the final value
% of Kc (3).

```

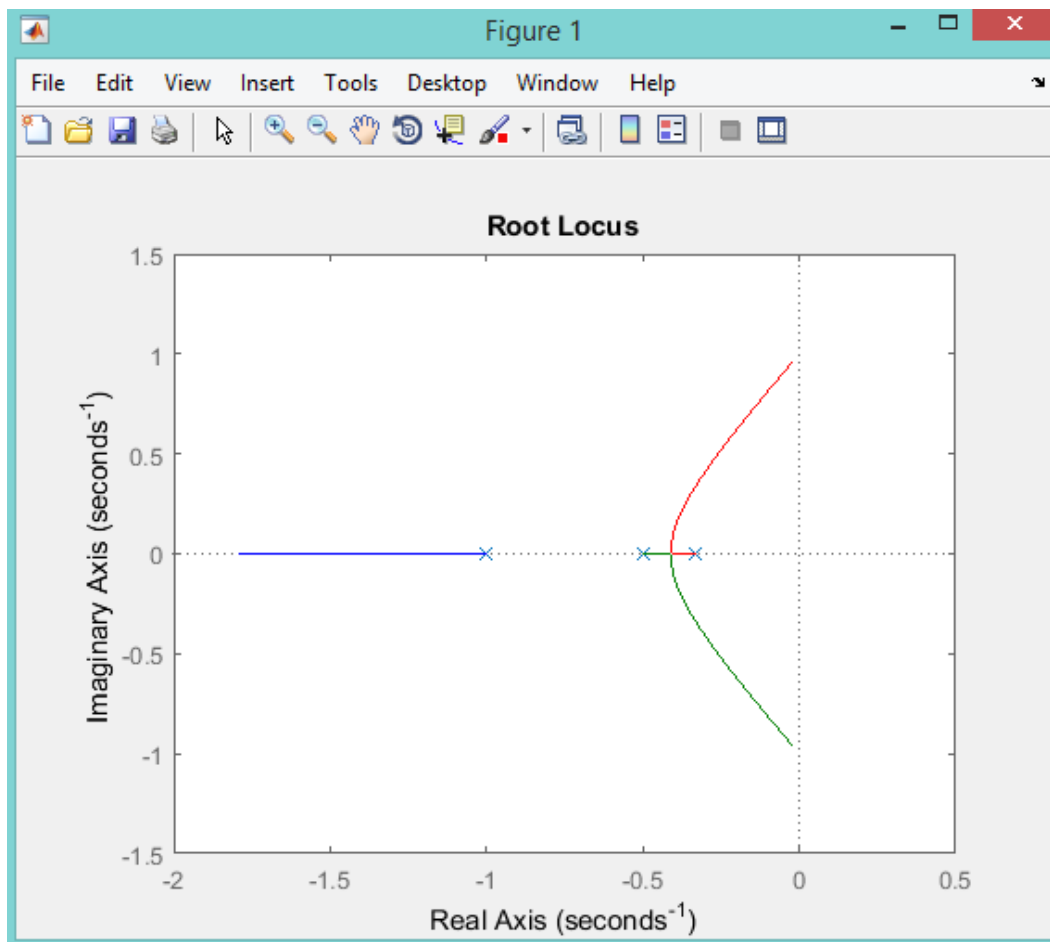


Figure 1.0: The Root locus Plot in MATLAB

