## Question 1

K>0

Figure 1 : Bode(G)



Figure 2 : nyquist(G)

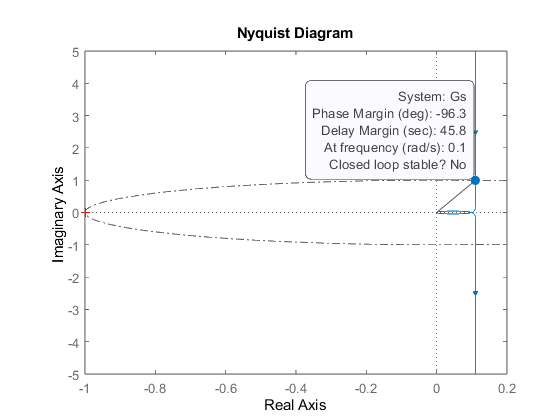
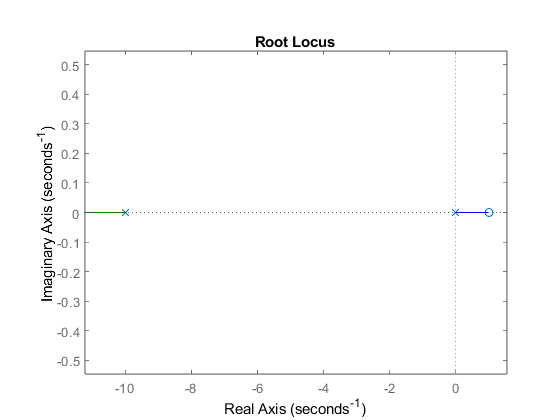


Figure 3 : rlocus(G)



K<0

Figure 4 : Bode de G



Figure 5 : Nyquist de G

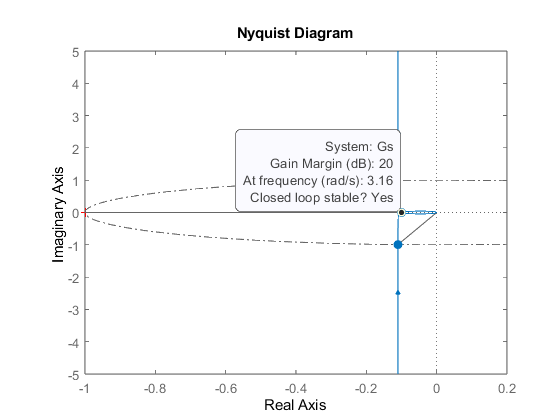
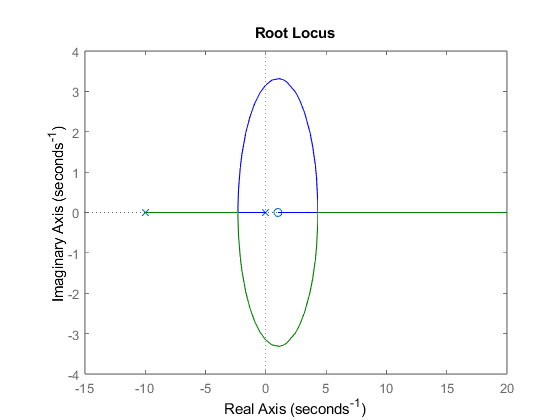


Figure 6 rootlocus de G



## Question 2

Figure 7 : Matlab du système en temporel

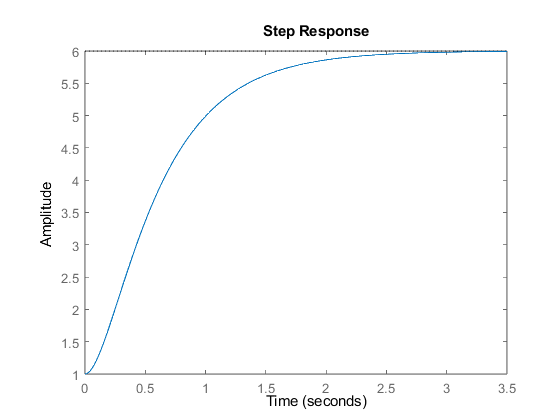


Figure 8 : Geogebra

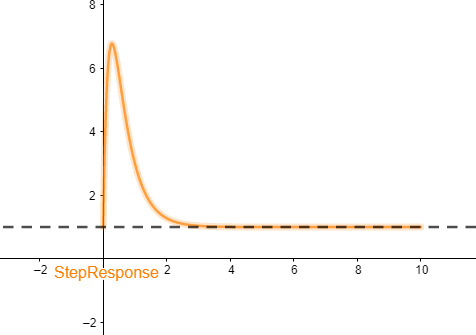


Figure 9 : step de x1, x2

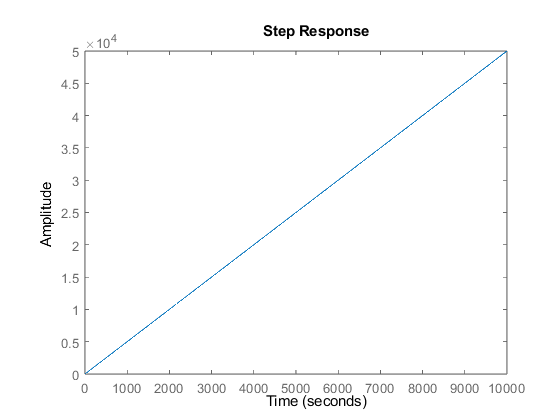


Figure 10 : marge de Phase de P(s)

