5. Consider the closed-loop transfer function $G_{CL} = \frac{K_c(1+s)}{10s^3 + 17s^2 + 8s + 1 + K_c}$.
   
   a. For the case $K_c = 1$, enter the transfer function into Matlab using the `tf()` function. Use the `step()` function to plot the response of this system to a step function input.

   b. Write a Matlab program which uses a `for` or a `while` loop to cycle through values of $K_c$ from 0.1 to 25.6, doubling $K_c$ in each successive cycle. Inside the loop, create a plot with the results of each run. Use the `hold on` command to show the evolution of the response of the system on a single plot.