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%Assignment 1
% Done by Mahmoud Yassin Mahmoud
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% Submitted To Dr. Wail A. Mousa
% Bism Allah and I will begin with
%(Q1)The step sequence: u(n) for n= -10,...,50.
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
clc;
clear;
%.....
%calculation of discrete time

    n1 = -10:-1;
    n2 = 1:50;
    n = [n1 n2];
%.....
%calculation of step sequence

u1 = zeros(size(n1));
u2 = ones(size(n2));
u = [u1 u2];
%.....
%calculation of length

    the_length_u = length(u);
    the_length_n = length(n);
fprintf('The length of u(n) is : %d\n',the_length_u);
fprintf('The length of n is : %d\n',the_length_n);
%.....
%ploting

stem(n,u);
grid minor
xlim([-11 52])
ylim([0 3])
set(gca,'fontsize',14)
title('The step sequence: u(n) for n= -10,...,50.')
xlabel('-10< n < 50','fontsize',18)
ylabel('u(n)','fontsize',18)
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

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The length of u(n) is : 60
 The length of n is : 60

The step sequence: $u(n)$ for $n = -10, \dots, 50$.

