function [ x,n ] = stepseq( n0,n1,n2 )

n=[n1:n2];

x=[(n-n0)>=0]

end

clc;

clear all;

close all;

[y,n]=stepseq(4,-8,8)

stem(n,x)

xlabel('time')

ylabel('amplitude')

title('step signal')

function [ y,n ] = sigfold( x,n )

y=fliplr(x);

n=-fliplr(n);

end

clc;

clear all;

close all;

x=[1,2,3,4,5,-4,-3]

n=[-4:2]

[y,n]=sigfold(x,n)

stem(n,x)

xlabel('time')

ylabel('amplitude')

title('step signal')

function [ y,n ] = sigsift(x,m,k )

n=m+k;

y=x;

end

clc;

clear all;

close all;

x=[1,2,3,4,5,6]

n=[-3:2]

[y,n]=sigfold(x,n)

stem(n,x)

xlabel('time')

ylabel('amplitude')

title('step signal')

function [ y,n ] = sigadd(x1,n1,x2,n2 )

n= min(min(n1),min(n2)): max(max(n1),max(n2));

y1=zeros(1,length(n));

y2=y1;

y1(find((n>=min(n1))&(n<=max(n1))==1))=x1;

y2(find((n>=min(n2))&(n<=max(n2))==1))=x2;

y=y1+y2;

end

clc;

clear all;

close all;

x1=[1,2,3,4,5];

n1=[-2:2];

x2=[2,4,6,8,7];

n2=[-5:-1];

[y,n]=sigadd(x1,n1,x2,n2)

stem(n,y)

xlabel('time')

ylabel('amplitude')

title('step signal')

function [xe,ne,xo,no] = evenodd(x,n)

[y,n1]=sigfold(x,n);

[xe,ne]=sigadd(x,n,y,n1);

xe=xe.\*0.5;

[xo,no]=sigadd(x,n,-y,n);

xo=xo.\*0.5;

end

clc;

clear all;

close all;

[x]=[-2,-1,0,1,2,3];

n=[0:5];

[xe,ne,xo,no]=evenodd(x,n);

stem(ne,xe);

stem(no,xo);

function [ y,n ] = sigmult(x1,n1,x2,n2 )

n= min(min(n1),min(n2)): max(max(n1),max(n2));

y1=zeros(1,length(n));

y2=y1;

y1(find((n>=min(n1))&(n<=max(n1))==1))=x1;

y2(find((n>=min(n2))&(n<=max(n2))==1))=x2;

y=y1.\*y2;

end

clc;

clear all;

close all;

x1=[1,2,3,4,5];

n1=[-2:2];

x2=[2,4,6,8,7];

n2=[-5:-1];

[y,n]=sigmult(x1,n1,x2,n2)

stem(n,y)

xlabel('time')

ylabel('amplitude')

title('step signal')

function [ x,n ] =impseq( n0,n1,n2 )

n=[n1:n2];

x=[(n-n0)==0]

end

clc;

clear all;

close all;

[y,n]=impseq(4,-8,8)

stem(n,y)

xlabel('time')

ylabel('amplitude')

title('imp signal')

