DIF FFT

clear all;

close all;

x = input('enter the length of the sequence :');

n = input('enter the sequence');

y = fft(n,x);

m = abs(y);

subplot(2,1,1);

stem(m);

display(m);

grid on;

title('magnitude spectrum');

p = angle(y);

subplot(2,1,2);

t = p\*180/pi;

stem(t);

display(t);

grid on;

title('phase specturm');

figure(1);

output:

enter the length of the sequence : 4

enter the sequence[1 2 3 4]

m =[10.0000 2.8284 2.0000 2.8284]

t =[0 135 180 -135]

figure:



8 POINT SEQUENCE:

output:

enter the length of the sequence :8

enter the sequence[1 2 3 4 5 6 7 8]

m =[ 36.0000 10.4525 5.6569 4.3296 4.0000 4.3296 5.6569 10.4525]

t =[ 0 112.5000 135.0000 157.5000 180.0000 -157.5000 -135.0000 -112.5000]

figure:

