OBSERVATION

enter the sequence

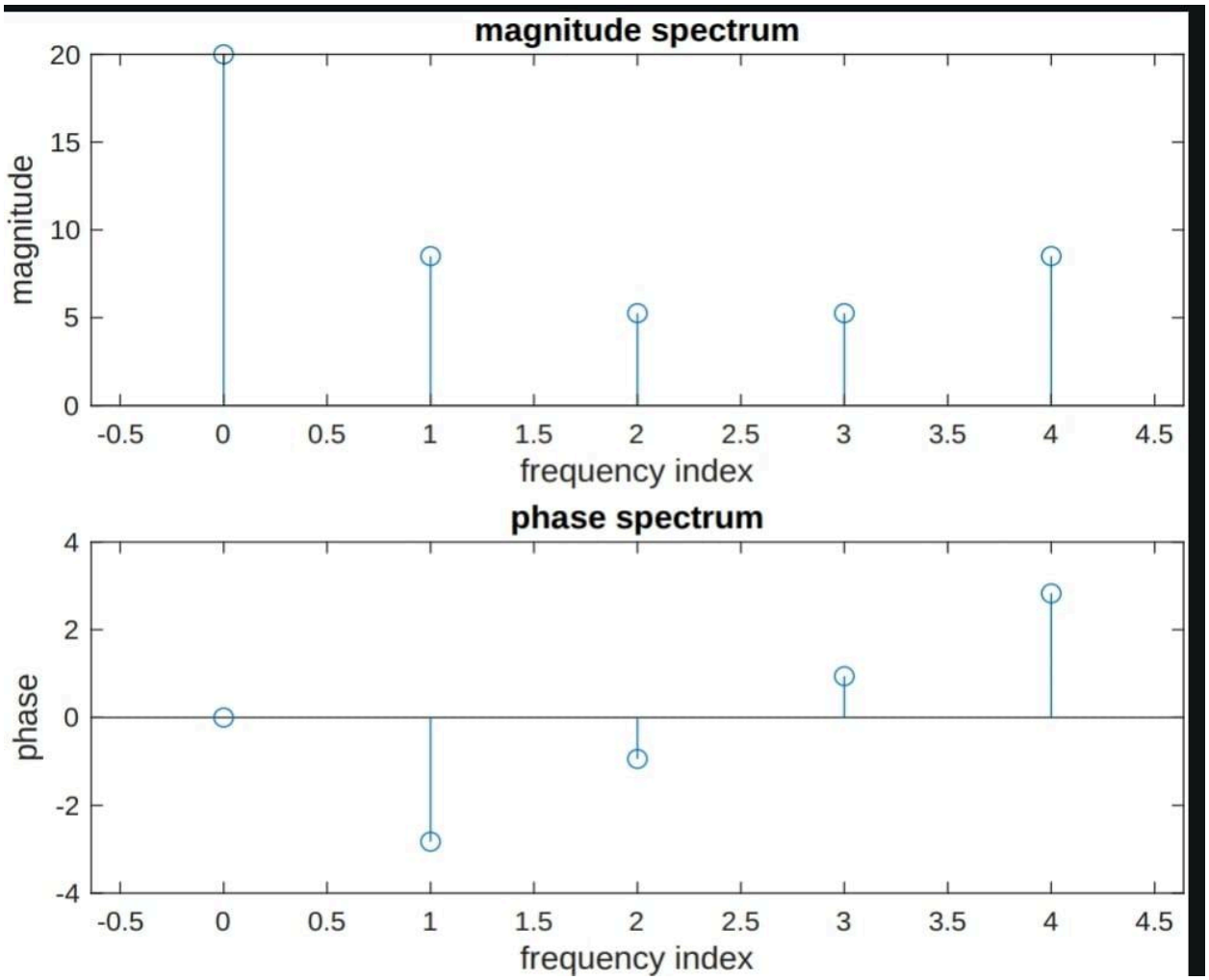
[2 4 6 8]

enter the value of Nfor N point dft

5

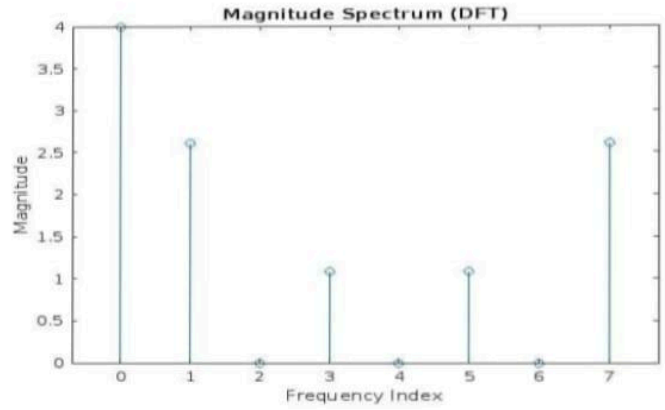
20.0000 + 0.0000i -8.0902 - 2.6287i 3.0902 - 4.2533i 3.0902 + 4.2533i -8.0902 + 2.6287i

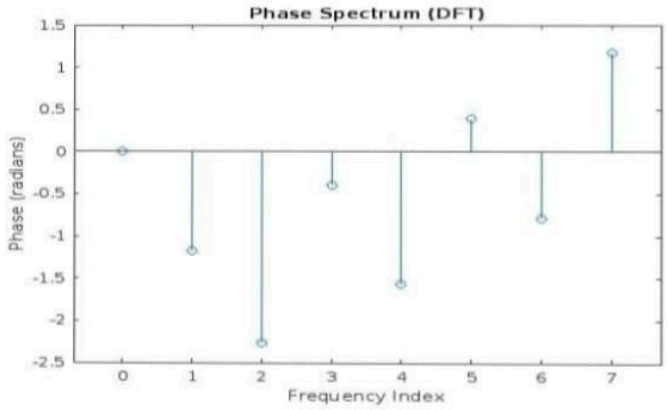
20.0000 + 0.0000i -8.0902 - 2.6287i 3.0902 - 4.2533i 3.0902 + 4.2533i -8.0902 + 2.6287i



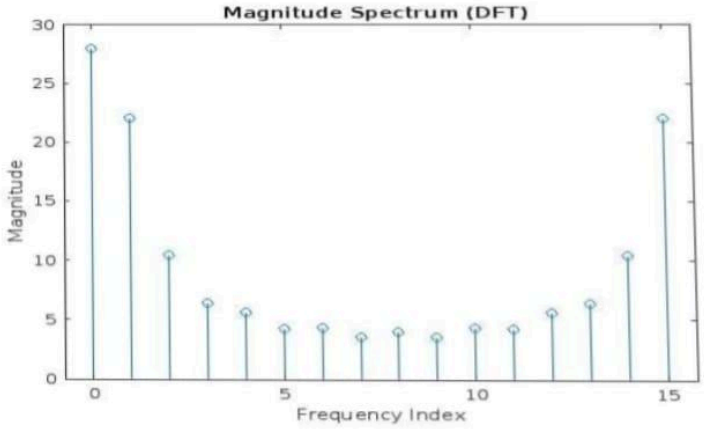
Enter the sequence:
[1,1,1,1]
Enter value of N for N-point DFT:
8
DFT without inbuilt function:

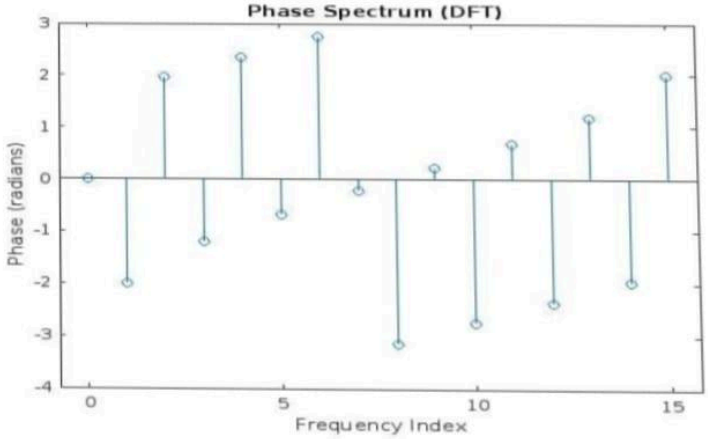
4.0000 + 0.0000i 1.0000 - 2.4142i
0.0000 + 0.0000i 1.0000 - 0.4142i
0.0000 + 0.0000i 1.0000 + 0.4142i
0.0000 + 0.0000i 1.0000 + 2.4142i
DFT using FFT:
4.0000 + 0.0000i 1.0000 - 2.4142i
0.0000 + 0.0000i 1.0000 - 0.4142i
0.0000 + 0.0000i 1.0000 + 0.4142i
0.0000 + 0.0000i 1.0000 + 2.4142i





Enter the sequence:
[0,1,2,3,4,5,6,7]
Enter value of N for N-point DFT:
16
DFT without inbuilt function:
28.0000 + 0.0000i, -9.1371 -20.1094i,-4.0000 + 9.6569i 2.3801 - 5.9864i,-4.0000 + 4.0000i 3.2768 - 2.6727i,-4.0000 + 1.6568i 3.4802 - 0.7956,i -4.0000 + 0.0000i 3.4802 + 0.7956i,-4.0000 - 1.6568i 3.2768 + 2.6727i, -4.0000 - 4.0000i 2.3801 + 5.9864i-4.0000 - 9.6569i - 9.1371 +20.1094i
DFT using FFT:
28.0000 + 0.0000i, -9.1371 -20.1094i,-4.0000 + 9.6569i 2.3801 - 5.9864i,-4.0000 + 4.0000i 3.2768 - 2.6727i,-4.0000 + 1.6568i 3.4802 - 0.7956,i -4.0000 + 0.0000i 3.4802 + 0.7956i,-4.0000 - 1.6568i 3.2768 + 2.6727i, -4.0000 - 4.0000i 2.3801 + 5.9864i-4.0000 - 9.6569i - 9.1371 +20.1094i





OBSERVATION

Enter the DFT sequence X[k] (as a vector)
[2,0,2,0]
IDFT sequence x[n] using formula:
1.0000 + 0.0000i 0.0000 + 0.0000i
1.0000 - 0.0000i 0.0000 + 0.0000i
IDFT sequence x[n] using built-in function:
1 0 1 0

OBSERVATION

Enter the input sequence:
[1,0,1,1]
DFT of the input sequence (using twiddle factor matrix):
3.0000 + 0.0000i 0.0000 + 1.0000i
1.0000 + 0.0000i 0.0000 - 1.0000i

OBSERVATION

Enter the input sequence:
[2,0,2,0]
IDFT of the input sequence (using Twiddle factor matrix):
1.0000+0.0000i
0.0000+0.0000i
1.0000+0.0000i
0.0000+0.0000i