Numpoint of **points** must be a power of **2**

Sampled **signal** =SIN(2*PI()* **Num** / **8**)

FFT in complex format

IMABS(FFT.complex)

0	0	0	0	dc
1	0.71	-4i	4	
2	1	0	0	
3	0.71	0	0	
4	0	0	0	nyq
5	-0.7	0	0	
6	-1	0	0	
7	-0.7	4i	4	

Sampled **signal** =COS(4*2*PI()*F8/ **8**)

FFT in complex format

0	1	0	dc
1	-1	0	
2	1	0	
3	-1	0	
4	1	8	nyq
5	-1	0	
6	1	0	
7	-1	0	

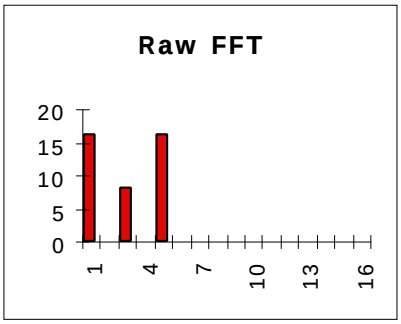
Sampled **signal** =1+COS(1*2*PI()*K8/ **8**)

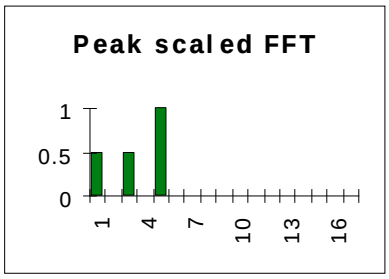
FFT in complex format

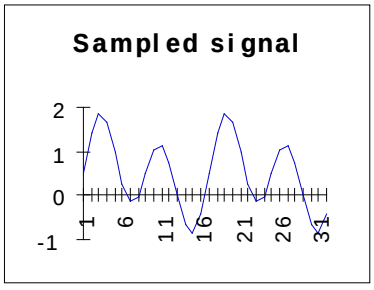
0	2	8	dc
1	1.71	4	
2	1	0	
3	0.29	0	
4	0	0	nyq
5	0.29	0	
6	1	0	
7	1.71	4	

Signal =**0.5**+**1***SIN(2*PI()*A20/ **8**)+ **0.5***SIN(2*PI()*A20/ **16**)

		FFT	raw	Peak_scale		RMS_scale_AC		RMS_scale_AC
0	0.5	16	16	0.5	dc	0		0.5
1	1.4	0	0	0		0		0
2	1.85	-8i	8	0.5		0.354		0.35
3	1.67	0	0	0		0		0
4	1	-16i	16	1		0.707		0.71
5	0.25	0	0	0		0		0
6	-0.1	0	0	0		0		0
7	-0	0	0	0		0		0
8	0.5	0	0	0		0		0
9	1.02	0	0	0		0		0
10	1.15	0	0	0		0		0
11	0.75	0	0	0		0		0
12	0	0	0	0		0		0
13	-0.7	0	0	0		0		0
14	-0.9	0	0	0		0		0
15	-0.4	0	0	0		0		0
16	0.5	0	0	0	nyq	0		0
17	1.4	0	0					
18	1.85	0	0					
19	1.67	0	0			RMS_AC		RMS
20	1	0	0			0.791		0.9
21	0.25	0	0					
22	-0.1	0	0					
23	-0	0	0					
24	0.5	0	0					
25	1.02	0	0					
26	1.15	0	0					
27	0.75	0	0					
28	0	16i	16					
29	-0.7	0	0					
30	-0.9	8i	8					
31	-0.4	0	0					







How to do FFT in Excel

need **sample signal** to be a **power of 2**

select **fourier from Analysis tool** under options

pick input array and first point output

need to gain scale

DRS 12-1-93

Standard Dev **RMS**

0.79 **0.935**