# [1] bounding phase

#It x f(x)

1 -10.00 579674.00

2 -9.50 379150.44

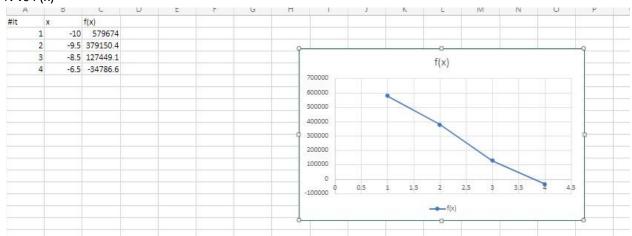
3 -8.50 127449.06

4 -6.50 -34786.55

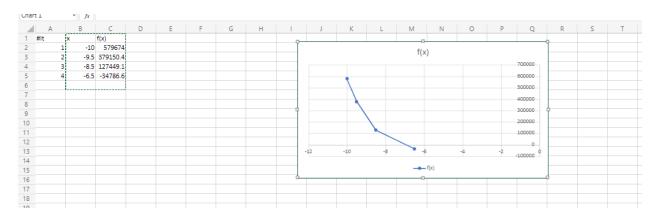
#The minimum point lies between (-8.500000,-2.500000)

#Total number of function evaluations: 6

## N vs F(x)



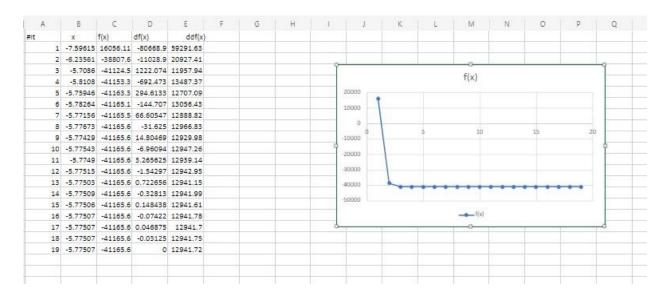
# X v/s F(x)



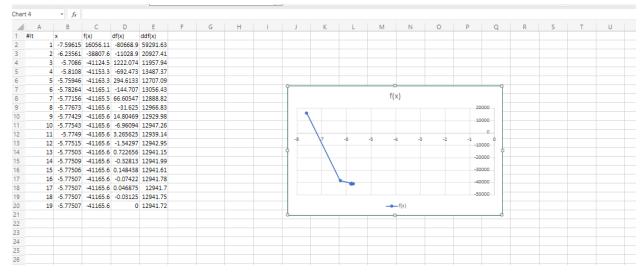
# Newton raphson

#It	х	f(x)	df(x)	ddf(x)
1	-7.596154	16056.109375	-80668.875000	59291.625000
2	-6.235610	-38807.597656	-11028.863281	20927.406250
3	-5.708604	-41124.539062	1222.074219	11957.940430
4	-5.810802	-41153.304688	-692.472656	13487.370117
5	-5.759459	-41163.296875	294.613281	12707.085938
6	-5.782644	-41165.082031	-144.707031	13056.425781
7	-5.771561	-41165.496094	66.605469	12888.815430
8	-5.776728	-41165.574219	-31.625000	12966.827148
9	-5.774289	-41165.605469	14.804688	12929.975586
10	-5.775434	-41165.640625	-6.960938	12947.260742
11	-5.774896	-41165.628906	3.265625	12939.138672
12	-5.775148	-41165.609375	-1.542969	12942.951172
13	-5.775029	-41165.613281	0.722656	12941.153320
14	-5.775085	-41165.617188	-0.328125	12941.992188
15	-5.775060	-41165.613281	0.148438	12941.611328
16	-5.775071	-41165.605469	-0.074219	12941.784180
17	-5.775065	-41165.621094	0.046875	12941.696289
18	-5.775069	-41165.613281	-0.031250	12941.754883
19	-5.775067	-41165.589844	0.000000	12941.721680

N v/s F(x)



## X V/S F(X)



### [2] bounding phase

#It x f(x)

1 -2.00 -3.73

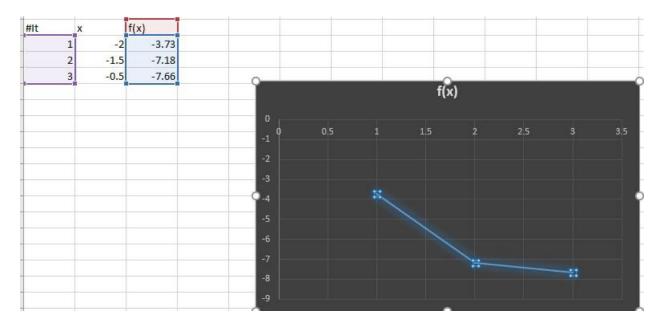
2 -1.50 -7.18

3 -0.50 -7.66

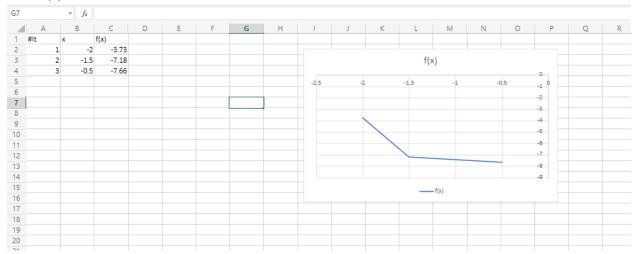
#The minimum point lies between (-1.500000,1.500000)

#Total number of function evaluations: 5

# N V/S F(x)

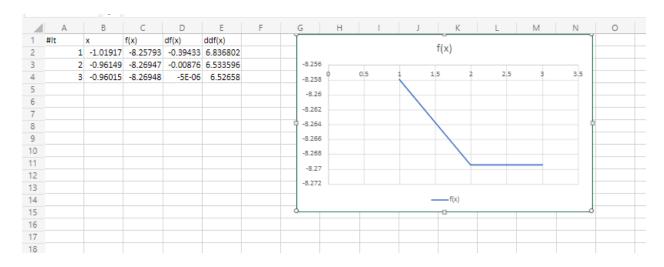


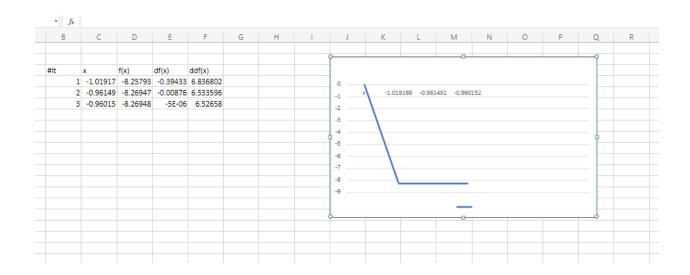
## X V/S F(x)



# Newton raphson

#It	X	f(x)	df(x)	ddf(x)		
1	-1.019	169	-8.2579	933	-0.394325	6.836802
2	-0.961	492	-8.2694	173	-0.008756	6.533596
3	-0.960	152	-8.2694	178	-0.000005	6.526580





### [3] BP

#It x f(x)

1 1.00 -3.37

2 1.50 -5.98

#The minimum point lies between (1.000000,2.500000)

#Total number of function evaluations: 4

# N V/S F(x)

#It	х	f(x)				. Ş		
1	i .	1 -3.37			f(	x)		
2	2	2 -7.27	0					
			-1	0.5		1.5	2	2.5
			-2					
			-3					
			-4					
			-5					
			-6					
			-7					
			-8					
				31 31		- 31	31 31	3

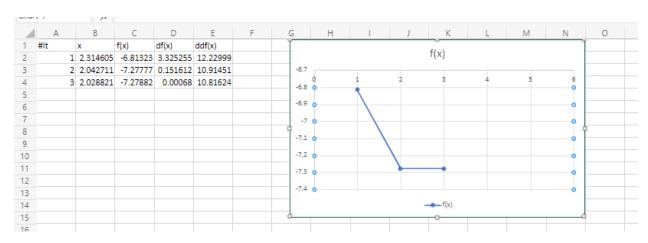
#### NR

#It	Х	f(x)	df(x)	ddf(x)	
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1 2.314605 -6.813226 3.325255 12.229990

2 2.042711 -7.277767 0.151612 10.914511

3 2.028821 -7.278823 0.000680 10.816239



# [4] B P

#It x f(x)

1 -2.00 57.39

2 -1.50 43.58

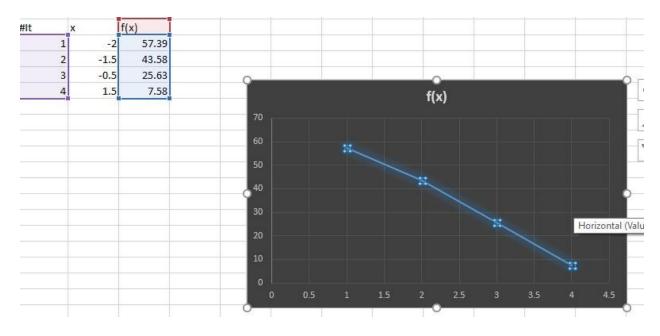
3 -0.50 25.63

4 1.50 7.58

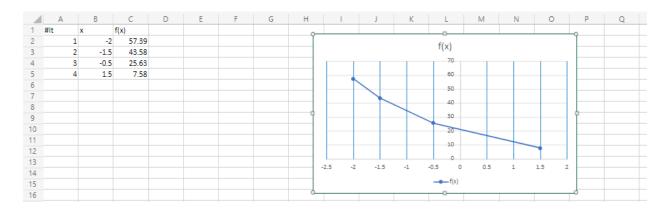
#The minimum point lies between (-0.500000,5.500000)

#Total number of function evaluations: 6

# N V/S F(x)



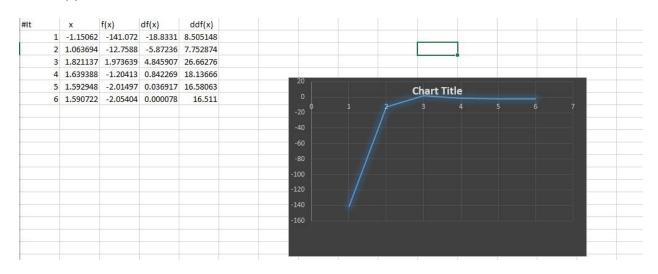
X V/S F(x)



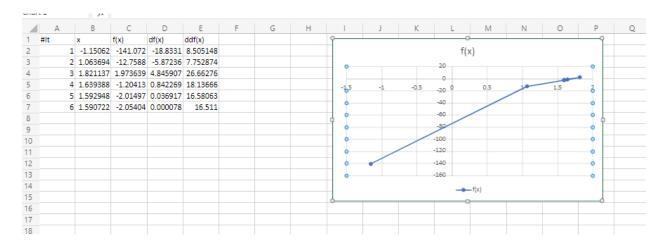
### NR

#It	X	f(x)	df(x)	ddf(x)			
1	-1.1506	20	-141.0	72174	-18.833	3063	8.505148
2	1.06369	94	-12.758	8797	-5.8723	359	7.752874
3	1.82113	37	1.9736	39	4.84590	07	26.662760
4	1.63938	88	-1.2042	129	0.84226	69	18.136662
5	1.59294	18	-2.0149	969	0.03693	17	16.580626
6	1.59072	22	-2.0540	042	0.0000	78	16.510998

### N V/S F(x)



X V/S F(x)

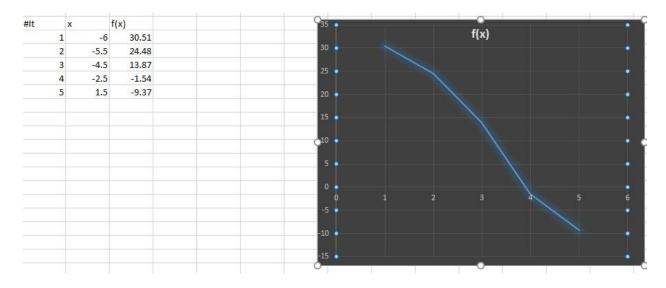


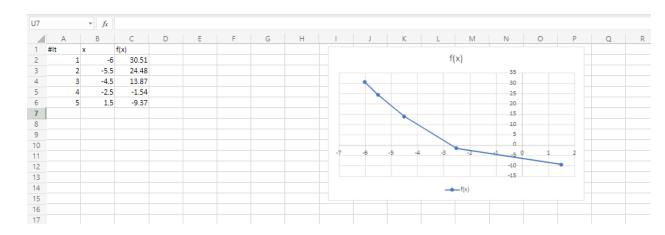
### [5] B P

#It f(x) Х 1 -6.00 30.51 2 -5.50 24.48 3 -4.50 13.87 4 -2.50 -1.54 5 1.50 -9.37

#The minimum point lies between (-2.500000,9.500000)

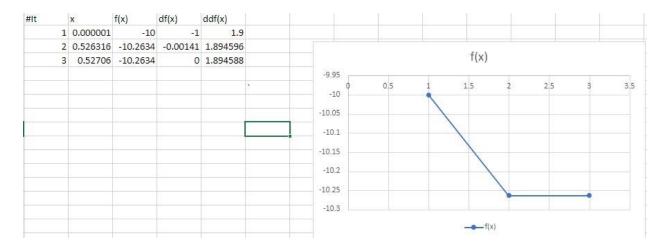
#Total number of function evaluations: 7

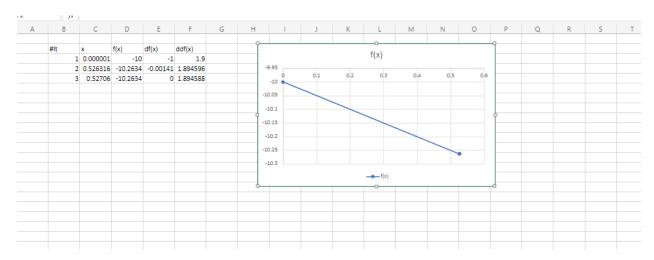




### NR

#It	X	f(x)	df(x)	ddf(x)		
1	0.0000	001	-10.000	0001	-0.999998	1.900000
2	0.5263	16	-10.263	3404	-0.001410	1.894596
3	0.5270	60	-10.263	3405	0.000000	1.894588





## [6] B P

#It x f(x)

1 -4.00 224.86

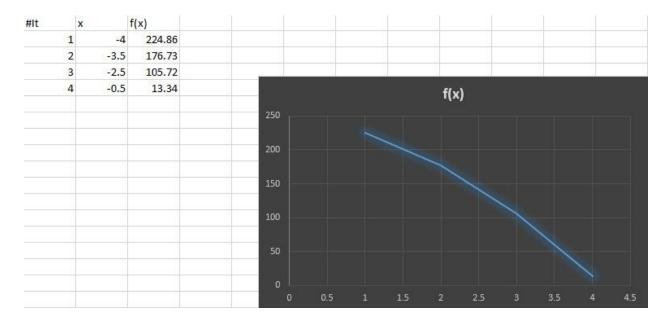
2 -3.50 176.73

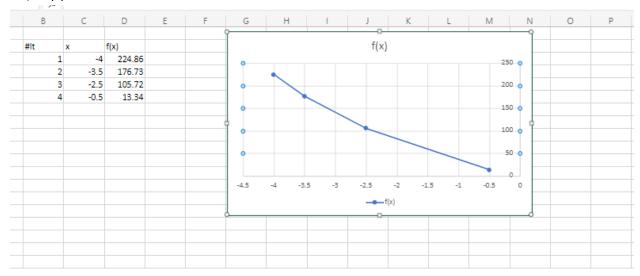
3 -2.50 105.72

4 -0.50 13.34

#The minimum point lies between (-2.500000,3.500000)

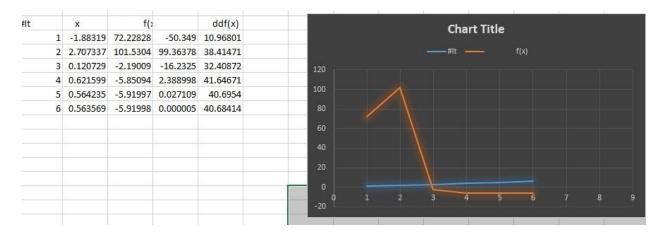
#Total number of function evaluations: 6

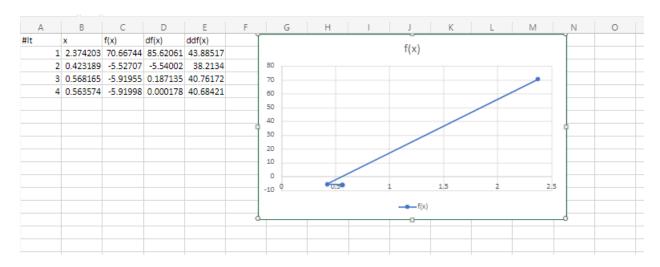




### NR

#It	X	f(x)	df(x)	ddf(x)			
1	2.3742	203	70.667	435	85.620	0605	43.885174
2	0.4231	.89	-5.5270	069	-5.540	0016	38.213402
3	0.5681	.65	-5.9195	554	0.187	135	40.761719
4	0.5635	574	-5.9199	983	0.000	178	40.684212





CONCLUSIONS= In Bounding phase method it converge or minimize the function into a specific interval. The is the best method to converge any function into a specific range within less no. of intervals. After once the range obtained then Newton raphson method converts its very fast because newton raphson method have the second order of convergence.