

$$f(x,y)=\cos(2x+y)+\sin(x-2y)+3$$

$$\text{part}(f,x)=-2\sin(2x+y)+\cos(x-2y)$$

$$\text{part}(f,y)=-\sin(2x+y)-2\cos(x-2y)$$

x	y	f(x,y)	part(f,x)	part(f,y)	delta x	delta y	part(f,x)*delta x	part(f,y)*delta y	f(x,y)+part(f,x)*delta x	f(x,y)+part(f,y)*delta y	f(x,y)+part(f,x)*delta x+part(f,y)*delta y		
0	0	4.000	1.000	-2.000	0.5	0.5	0.500	-1.000	4.500	3.000	3.500	(0.0,0.0,4.00)	(0.5,0.0,4.50)
0	0.5	3.036	-0.419	-1.560	0.5	0.5	-0.209	-0.780	2.827	2.256	2.047	(0.0,0.5,3.04)	(0.5,0.5,2.83)
0	1	2.631	-2.099	-0.009	0.5	0.5	-1.050	-0.005	1.581	2.626	1.577	(0.0,1.0,2.63)	(0.5,1.0,1.58)
0	1.5	2.930	-2.985	0.982	0.5	0.5	-1.492	0.491	1.437	3.421	1.928	(0.0,1.5,2.93)	(0.5,1.5,1.44)
0	2	3.341	-2.472	0.398	0.5	0.5	-1.236	0.199	2.105	3.540	2.304	(0.0,2.0,3.34)	(0.5,2.0,2.10)
0.5	0	4.020	-0.805	-2.597	0.5	0.5	-0.403	-1.298	3.617	2.721	2.319	(0.5,0.0,4.02)	(1.0,0.0,3.62)
0.5	0.5	2.591	-1.117	-2.753	0.5	0.5	-0.559	-1.376	2.033	1.215	0.656	(0.5,0.5,2.59)	(1.0,0.5,2.03)
0.5	1	1.586	-1.748	-1.051	0.5	0.5	-0.874	-0.525	0.712	1.061	0.187	(0.5,1.0,1.59)	(1.0,1.0,0.71)
0.5	1.5	1.600	-1.998	1.004	0.5	0.5	-0.999	0.502	0.601	2.102	1.103	(0.5,1.5,1.60)	(1.0,1.5,0.60)
0.5	2	2.361	-1.219	1.732	0.5	0.5	-0.609	0.866	1.751	3.227	2.617	(0.5,2.0,2.36)	(1.0,2.0,1.75)
1	0	3.425	-1.278	-1.990	0.5	0.5	-0.639	-0.995	2.786	2.430	1.791	(1.0,0.0,3.43)	(1.5,0.0,2.79)
1	0.5	2.199	-0.197	-2.598	0.5	0.5	-0.098	-1.299	2.100	0.900	0.801	(1.0,0.5,2.20)	(1.5,0.5,2.10)
1	1	1.169	0.258	-1.222	0.5	0.5	0.129	-0.611	1.298	0.558	0.687	(1.0,1.0,1.17)	(1.5,1.0,1.30)
1	1.5	1.154	0.285	1.183	0.5	0.5	0.143	0.592	1.297	1.746	1.888	(1.0,1.5,1.15)	(1.5,1.5,1.30)
1	2	2.205	0.524	2.737	0.5	0.5	0.262	1.368	2.467	3.574	3.835	(1.0,2.0,2.21)	(1.5,2.0,2.47)
1.5	0	3.008	-0.212	-0.283	0.5	0.5	-0.106	-0.141	2.902	2.866	2.760	(1.5,0.0,3.01)	(2.0,0.0,2.90)
1.5	0.5	2.543	1.579	-1.404	0.5	0.5	0.790	-0.702	3.333	1.841	2.630	(1.5,0.5,2.54)	(2.0,0.5,3.33)
1.5	1	1.867	2.391	-0.998	0.5	0.5	1.196	-0.499	3.063	1.368	2.563	(1.5,1.0,1.87)	(2.0,1.0,3.06)
1.5	1.5	1.792	2.026	0.836	0.5	0.5	1.013	0.418	2.805	2.210	3.223	(1.5,1.5,1.79)	(2.0,1.5,2.80)
1.5	2	2.685	1.117	2.561	0.5	0.5	0.558	1.281	3.244	3.966	4.524	(1.5,2.0,2.69)	(2.0,2.0,3.24)
2	0	3.256	1.097	1.589	0.5	0.5	0.549	0.795	3.804	4.050	4.599	(2.0,0.0,3.26)	(2.5,0.0,3.80)
2	0.5	3.631	2.495	-0.103	0.5	0.5	1.248	-0.052	4.878	3.579	4.827	(2.0,0.5,3.63)	(2.5,0.5,4.88)
2	1	3.284	2.918	-1.041	0.5	0.5	1.459	-0.521	4.743	2.763	4.222	(2.0,1.0,3.28)	(2.5,1.0,4.74)
2	1.5	2.867	1.951	-0.375	0.5	0.5	0.976	-0.188	3.843	2.680	3.655	(2.0,1.5,2.87)	(2.5,1.5,3.84)
2	2	3.051	0.143	1.112	0.5	0.5	0.071	0.556	3.122	3.607	3.678	(2.0,2.0,3.05)	(2.5,2.0,3.12)
2.5	0	3.882	1.117	2.561	0.5	0.5	0.558	1.281	4.440	5.163	5.721	(2.5,0.0,3.88)	(3.0,0.0,4.44)

mim val	1.154	-2.985	-2.753	0.601	0.558	0.187
max val	4.020	2.918	2.737	4.878	5.163	5.721

(0.5,0.5,3.50)	(0.0,0.5,3.00)
(0.5,1.0,2.05)	(0.0,1.0,2.26)
(0.5,1.5,1.58)	(0.0,1.5,2.63)
(0.5,2.0,1.93)	(0.0,2.0,3.42)
(0.5,2.5,2.30)	(0.0,2.5,3.54)
(1.0,0.5,2.32)	(0.5,0.5,2.72)
(1.0,1.0,0.66)	(0.5,1.0,1.21)
(1.0,1.5,0.19)	(0.5,1.5,1.06)
(1.0,2.0,1.10)	(0.5,2.0,2.10)
(1.0,2.5,2.62)	(0.5,2.5,3.23)
(1.5,0.5,1.79)	(1.0,0.5,2.43)
(1.5,1.0,0.80)	(1.0,1.0,0.90)
(1.5,1.5,0.69)	(1.0,1.5,0.56)
(1.5,2.0,1.89)	(1.0,2.0,1.75)
(1.5,2.5,3.84)	(1.0,2.5,3.57)
(2.0,0.5,2.76)	(1.5,0.5,2.87)
(2.0,1.0,2.63)	(1.5,1.0,1.84)
(2.0,1.5,2.56)	(1.5,1.5,1.37)
(2.0,2.0,3.22)	(1.5,2.0,2.21)
(2.0,2.5,4.52)	(1.5,2.5,3.97)
(2.5,0.5,4.60)	(2.0,0.5,4.05)
(2.5,1.0,4.83)	(2.0,1.0,3.58)
(2.5,1.5,4.22)	(2.0,1.5,2.76)
(2.5,2.0,3.66)	(2.0,2.0,2.68)
(2.5,2.5,3.68)	(2.0,2.5,3.61)
(3.0,0.5,5.72)	(2.5,0.5,5.16)