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Chromosome size – 10

Capacity – 20;

Epoch – 50;

No mutation;

Onepoint crossover;

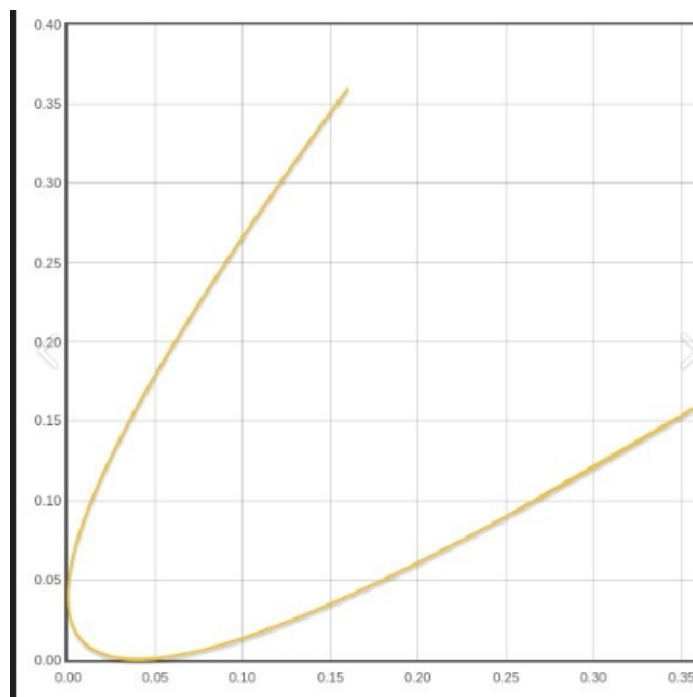
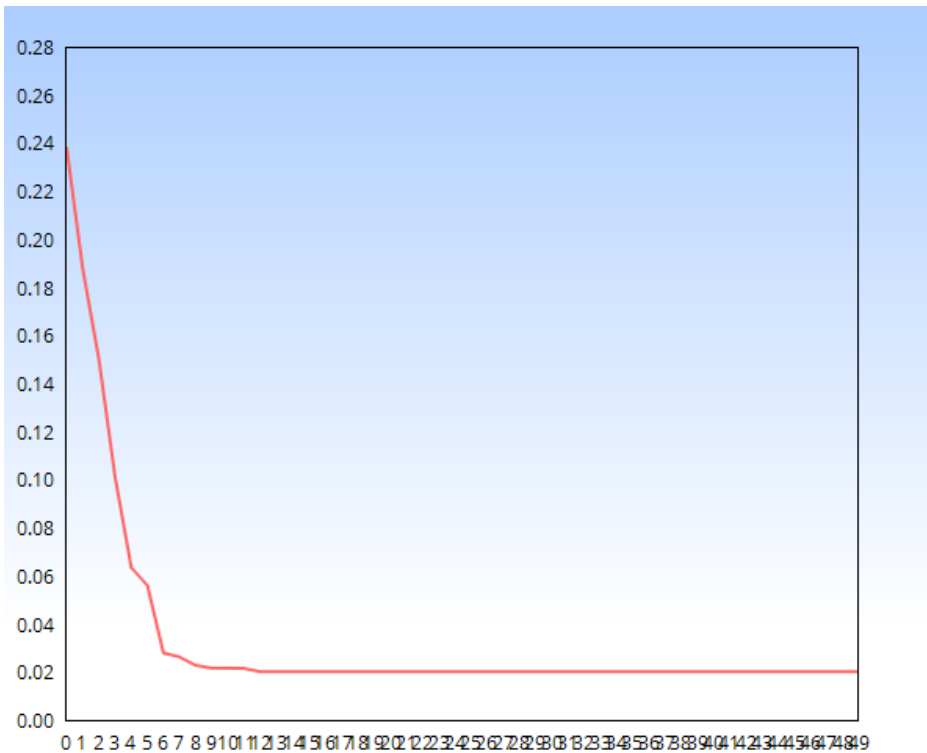
Truncle selection;

Y — generations

x — missed

$$f1 = (x - 0.4)^2$$

$$f2 = (x - 0.6)^2$$



Trade of function

start trade

rang	chromosome	f1	f2	dominated b	dominate
0	1	0.1592197	0.35882908	18	0
1	1100	0.15076233	0.34607482	17	1
2	1111010110	0.31246352	0.12886979	16	2
3	10001000	0.07138916	0.21826416	15	3
4	10001101	0.06880375	0.21372563	14	4
5	10001111	0.06778294	0.21192355	13	5
6	11000111	0.042297706	0.16456333	12	6
7	11110100	0.026152954	0.13084045	11	7
8	1100000111	0.12733188	0.02459751	10	8
9	1100000000	0.1225	0.0225	9	9
10	1011111111	0.12181736	0.022207985	8	10
11	1011001000	0.08720947	0.009084472	7	11
12	1010111010	0.079321444	0.0066651916	6	12
13	101001000	0.0063500977	0.0782251	5	13
14	100001	0.006042633	0.07713638	4	14
15	101100110	0.0025392151	0.062695466	3	15
16	1001111101	0.049315225	4.870987E-4	2	16
17	1001110011	0.045073282	1.5140533E-4	1	17
18	1000111000	0.023928223	0.0020532226	0	18
19	1000001011	0.012263832	0.007966957	0	19

10 iteration

[illegible]

finish iteration

[illegible]

Algorithm found optimum for both functions $y_1(x) = (x-0.4)^2$ and $y_2(x) = (x-0.6)^2$. Optimum for both is $y_1(x)=y_2(x)=0.02$ and $x = 0.5$. To prove let's show trade-off graph:
axis X = $y_1(x)$
axis Y = $y_2(x)$