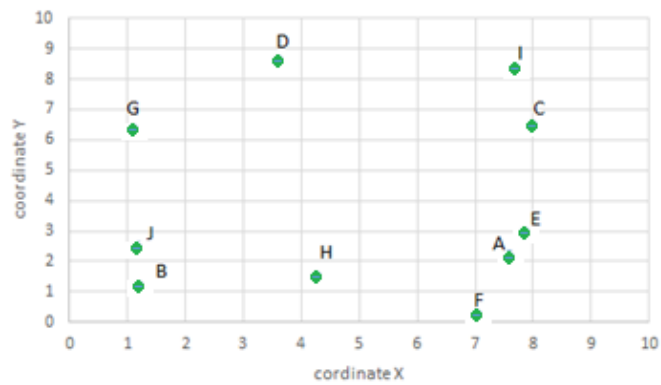


Maksim Malakhav

The first scenario:

City coordinate and map:

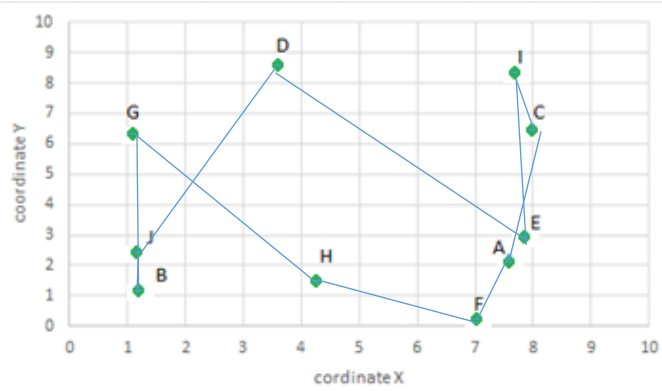
A	7,6	2,2
B	1,3	1,2
C	8	6,4
D	3,6	8,6
E	7,9	2,9
F	7	0,1
G	1,1	6,3
H	4,3	1,5
I	7,7	8,3
J	1,2	2,5



	A	B	C	D	E	F	G	H	I	J
A	0	6.4	4.2	7.5	0.8	2.2	7.7	3.4	6.1	6.4
B	6.4	0	8.5	7.7	6.8	5.8	5.1	3	9.6	1.3
C	4.2	8.5	0	4.9	3.5	6.4	6.9	6.1	1.9	7.8
D	7.5	7.7	4.9	0	7.1	9.2	3.4	7.1	4.1	6.6
E	0.8	6.8	3.5	7.1	0	2.9	7.6	3.9	5.4	6.7
F	2.2	5.8	6.4	9.2	2.9	0	8.6	3	8.2	6.3
G	7.7	5.1	6.9	3.4	7.6	8.6	0	5.8	6.9	3.8
H	3.4	3	6.1	7.1	3.9	3	5.8	0	7.6	3.3
I	6.1	9.6	1.9	4.1	5.4	8.2	6.9	7.6	0	8.7
J	6.4	1.3	7.8	6.6	6.7	6.3	3.8	3.3	8.7	0

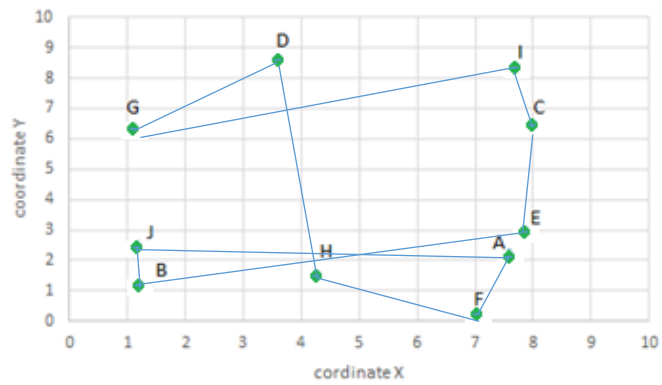
The 1st generation:

The path: A>F>H>G>B>J>D>E>I>C>A



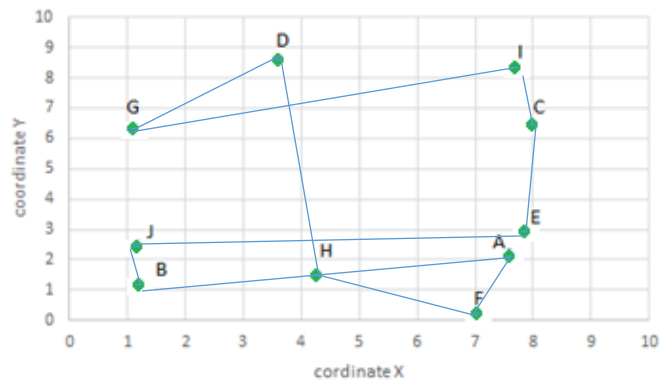
Fitness: 42,6

The path: A>F>H>D>G>I>C>E>B>J>A



Fitness: 42.5

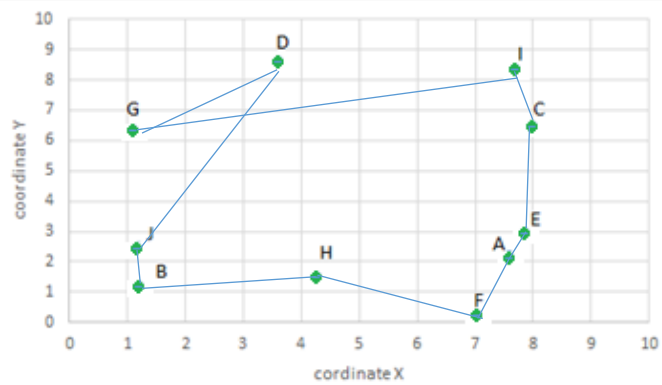
The path: A>F>H>D>G>I>C>E>J>B>A



Fitness: 42,4

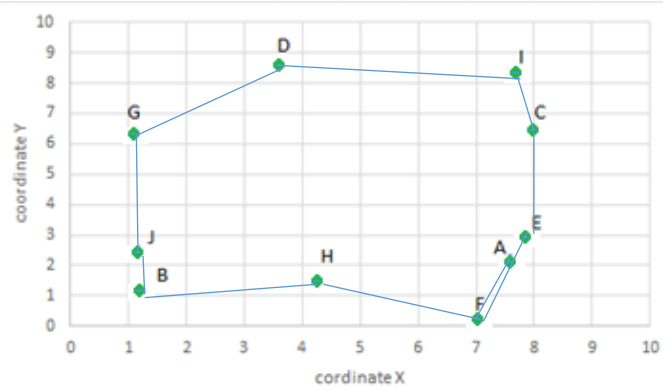
The intermediate generation:

The path: A>E>C>I>G>D>J>B>H>F>A



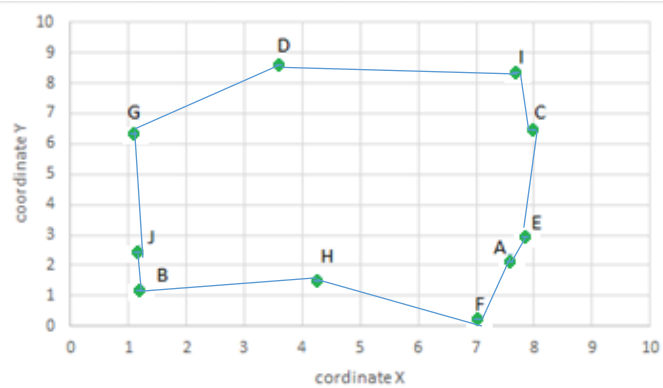
Fitness: 32,6

The path: A>F>E>C>I>D>G>J>B>H>A



Fitness: 29,5

The path: A>F>H>B>J>G>D>I>C>E>A

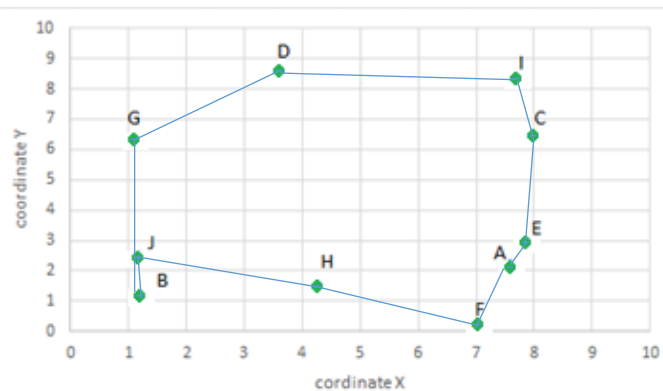


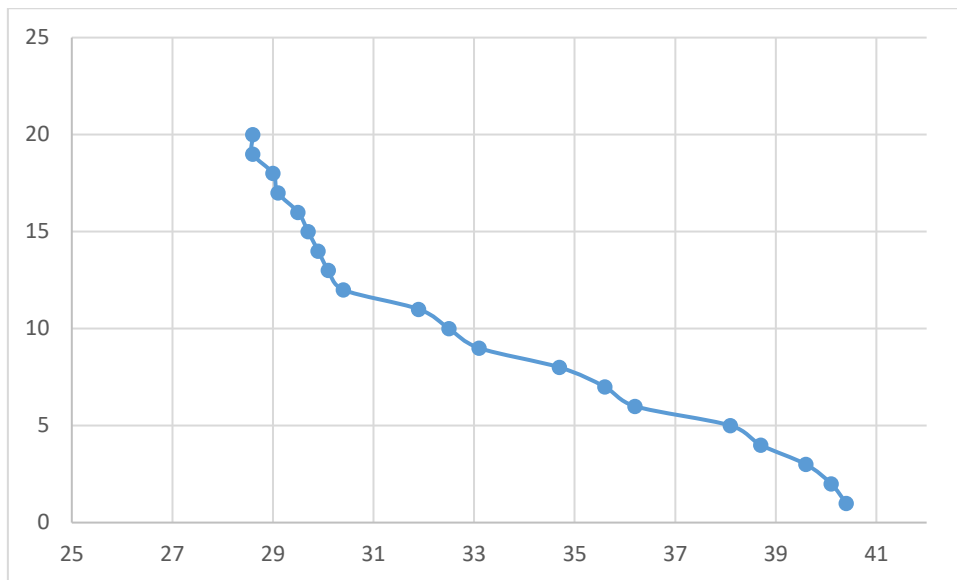
Fitness: 28,7

The last generation:

The best path: A>E>C>I>D>G>B>J>H>F>A

Fitness: 28,6



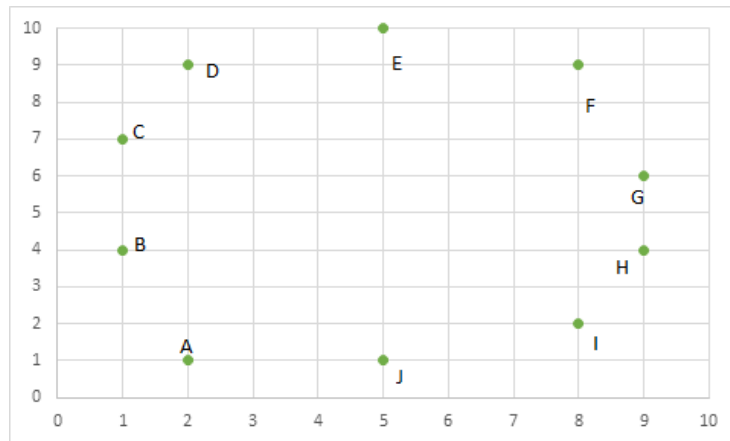


The second scenario:

A:2 1
 B:1 4
 C:1 7
 D:2 9
 E:5 10
 F:8 9
 G:9 6
 H:9 4
 I:8 2
 J:5 1

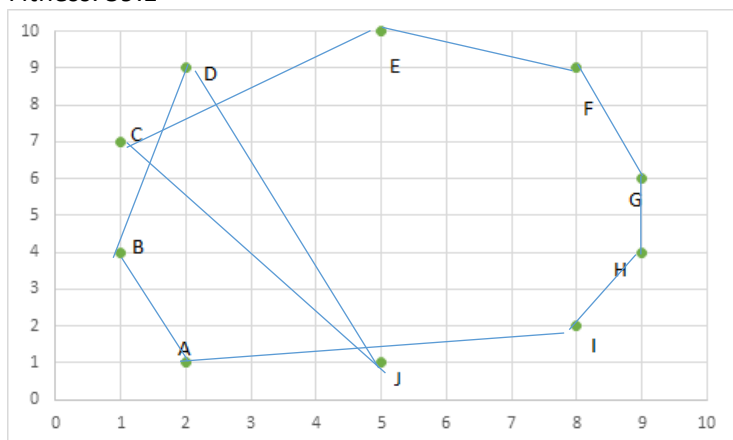
Distance:

0	3,2	6,1	8	9,5	10	8,6	7,6	6,1	3
3,2	0	3	5,1	7,2	8,6	8,2	8	7,3	5
6,1	3	0	2,2	5	7,3	8,1	8,5	8,6	7,2
8	5,1	2,2	0	3,2	6	7,6	8,6	9,2	8,5
9,5	7,2	5	3,2	0	3,2	5,7	7,2	8,5	9
10	8,6	7,3	6	3,2	0	3,2	5,1	7	8,5
8,6	8,2	8,1	7,6	5,7	3,2	0	2	4,1	6,4
7,6	8	8,5	8,6	7,2	5,1	2	0	2,2	5
6,1	7,3	8,6	9,2	8,5	7	4,1	2,2	0	3,2
3	5	7,2	8,5	9	8,5	6,4	5	3,2	0



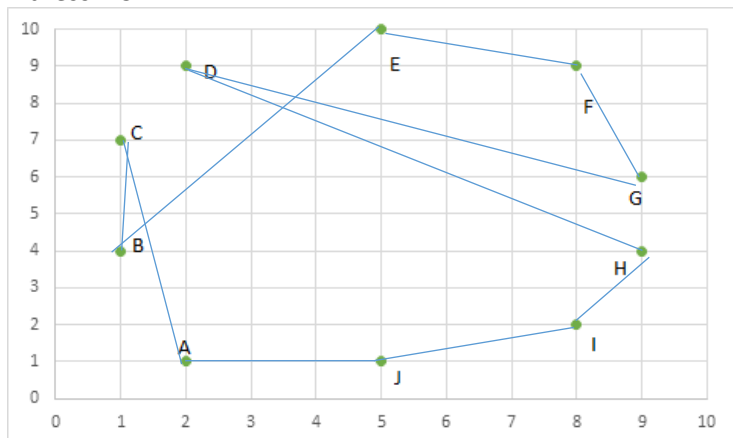
The 1st generation

The path: A>E>C>I>D>G>B>J>H>F>A
 Fitness: 59.1



The intermediate generation

The path: A>C>D>E>J>G>B>I>H>F>A
 Fitness: 49



The last generation

The best:

The best path: A>B>C>D>E>F>G>H>I>J>A
 Fitness: 43

