

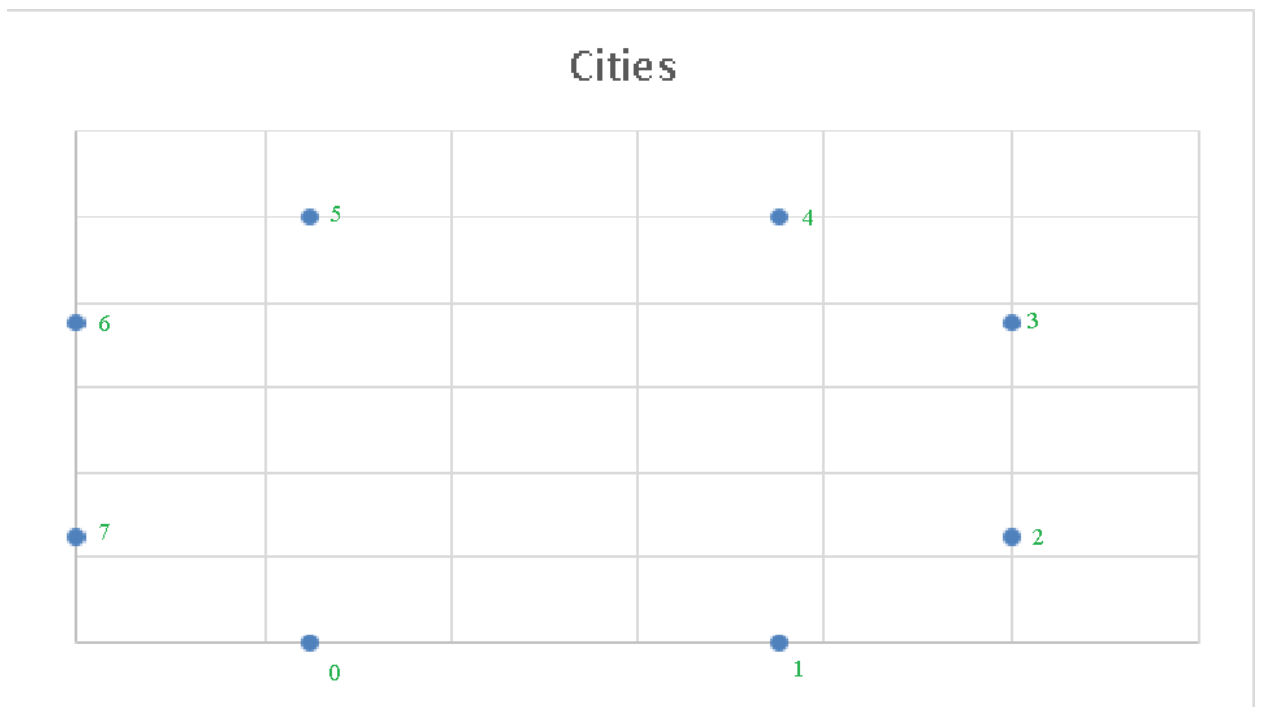
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Coordinates of cities:

0	2,5
0	7,5
2,5	10
7,5	10
10	7,5
10	2,5
7,5	0
2,5	0

Cities map:



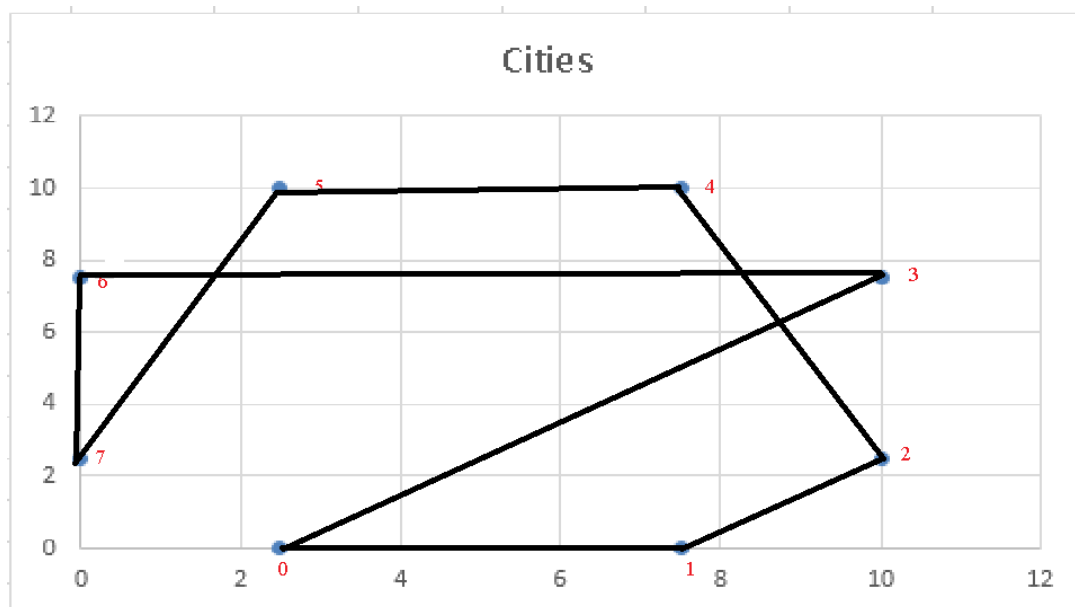
Matrix of distance:

A	B	C	D	E	F	G	H
0	5	7,905	10,606	11,18	10	7,905	3,54
5	0	3,54	7,905	10	11,18	10,606	7,905
7,905	3,54	0	5	7,905	10,606	11,18	10
10,606	7,905	5	0	3,54	7,905	10	11,18
11,18	10	7,905	3,54	0	5	7,905	10,606
10	11,18	10,606	7,905	5	0	3,54	7,905
7,905	10,606	11,18	10	7,905	3,54	0	5
3,54	7,905	10	11,18	10,606	7,905	5	0

Start random paths:

- 1) Path: 0-7-4-2-1-6-5-3-0 ; Distance: 58.23;
- 2) Path: 0-4-6-1-2-5-3-7-0 ; Distance: 66.45;
- 3) Path: 0-4-1-7-3-6-5-2-0; Distance: 72.31;
- 4) Path: 0-3-1-5-7-4-6-2-0; Distance: 75.19;
- 5) Path: 0-1-4-5-3-7-2-6-0 ; Distance: 68.17;
- 6) Path: **0-1-2-4-5-7-6-3-0** ; Distance: 54.95;
- 7) Path: 0-1-5-3-4-2-7-6-0 ; Distance: 58.43;
- 8) Path: 0-6-3-5-2-4-1-7-0 ; Distance: 65.76;
- 9) Path: 0-7-6-2-4-3-5-1-0 ; Distance: 55.24;
- 10) Path: 0-6-5-7-4-2-3-1-0 ; Distance: 55.76;

Best path: #7 his distance is 54.95. Graph of this path.



Intermediate paths:

- 1) Path: 0-3-1-4-7-2-5-6-0 ; Distance: 71.16;
- 2) Path: 0-1-7-2-3-5-6-4-0 ; Distance: 58.43; Color on the graph: **blue**.
- 3) Path: 0-6-3-5-4-7-1-2-0; Distance: 60.76;
- 4) Path: 0-2-1-4-5-3-6-7-0 ; Distance: 52.88; Color on the graph: **red**.
- 5) Path: 0-1-4-2-6-3-5-7-0 ; Distance: 63.43;
- 6) Path: 0-4-3-6-1-7-2-5-0 ; Distance: 73.83;
- 7) Path: 0-7-1-5-3-4-2-6-0 ; Distance: 61.05;
- 8) Path: 0-3-6-4-7-5-2-1-0 ; Distance: 66.17;
- 9) Path: 0-4-2-5-7-6-1-3-0 ; Distance: 71.71;
- 10) Path: **0-4-3-1-2-5-6-7-0** ; Distance: 48.83; Color on the graph: **yellow**.

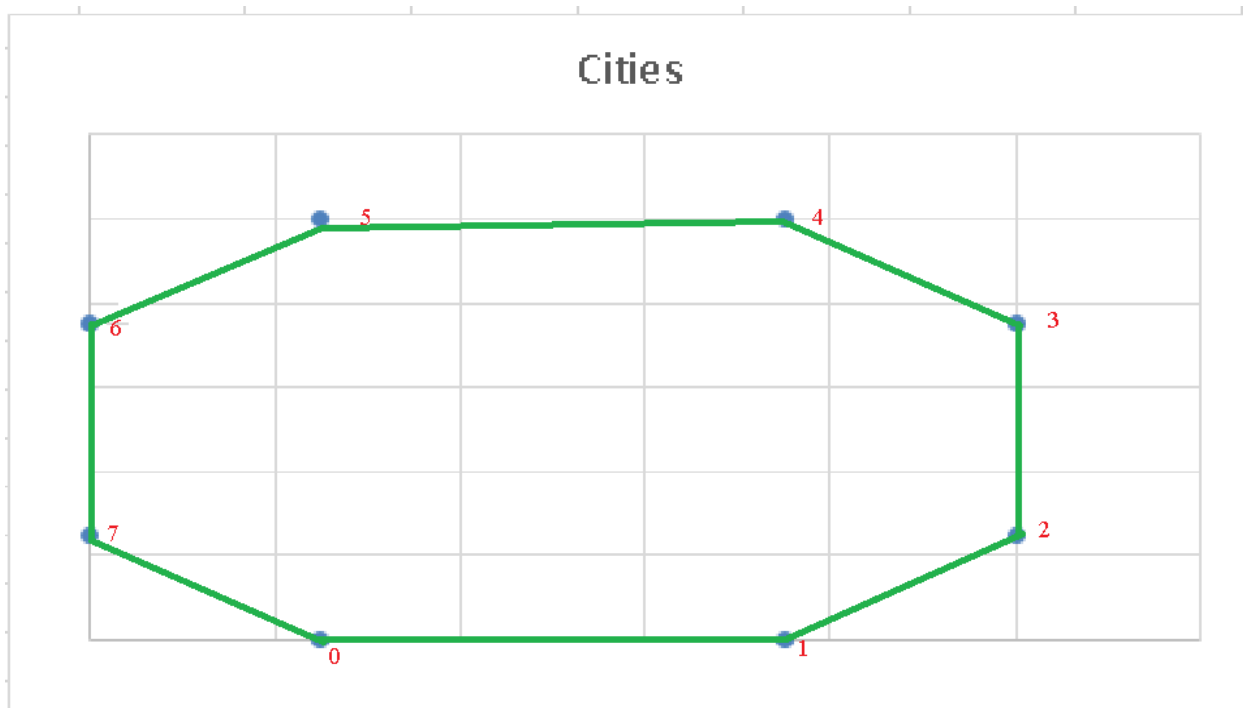
Best path: #10 his distance is 48.83. Graph of this path.

Intermediate graph:



Last path:

Path: **0-1-2-3-4-5-6-7**; Distance: **34.14**;



Graph fitness vs generation:

