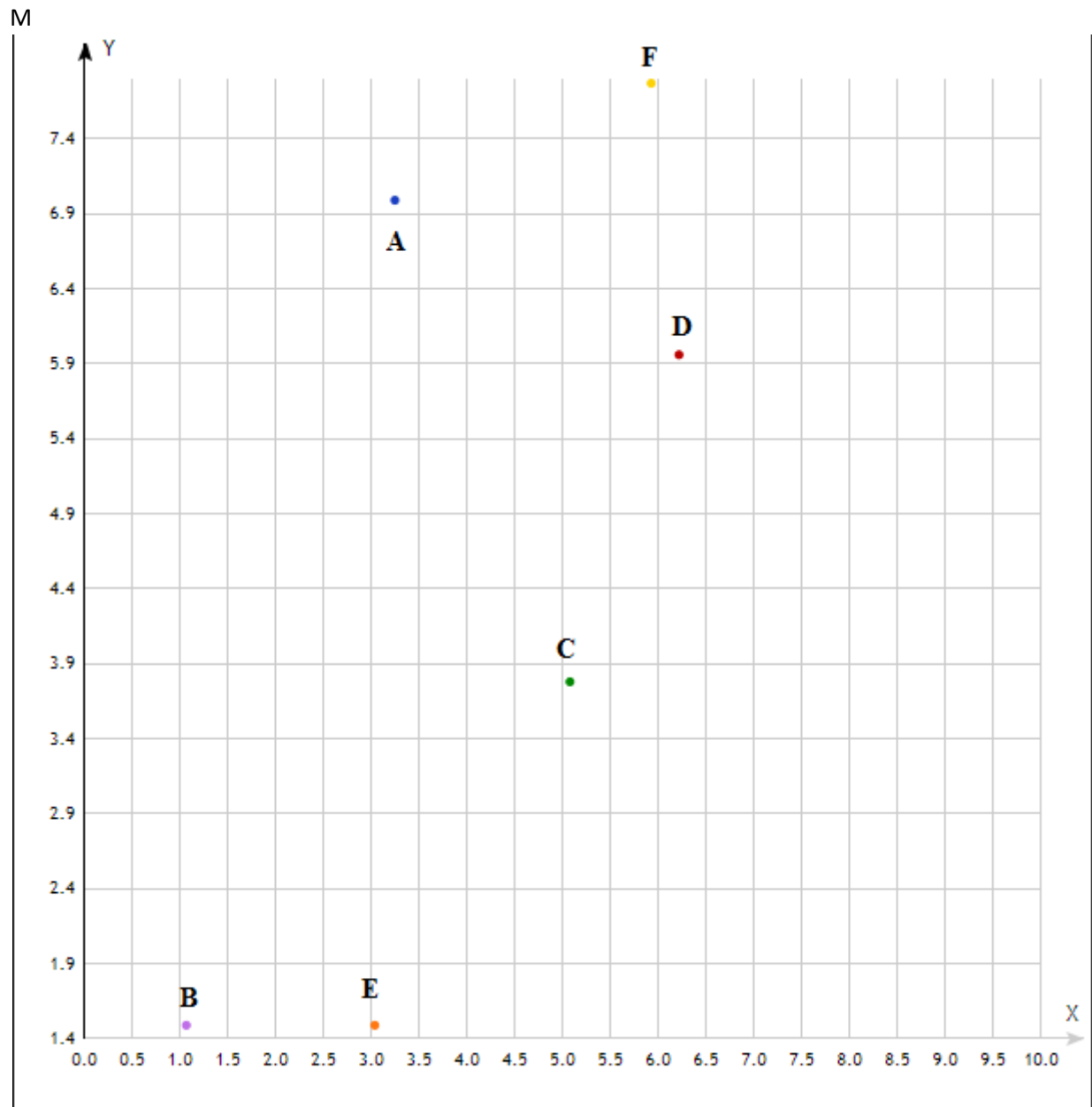


Cities map:



Matrix Distance between cities:

	A	B	C	D	E	F
A	0	5,92	3,69	3,14	5,50	2,73
B	5,92	0	4,62	6,82	1,97	7,77
C	3,69	4,62	0	2,46	3,07	3,37
D	3,14	6,82	2,46	0	5,48	4,5
E	5,50	1,97	3,07	5,48	0	1,62
F	2,37	7,77	3,37	4,5	1,62	0

All Distances:

ACBFEDA:31,4240115200694	ABCDEFB:22,3088087699306	ACBDEFA:22,4789766462423
ACDBEFA:24,3961443603702	ABCDFEA:21,3549336092937	ACBDFEA:21,5251014856054
ACDBFEA:32,9603581657764	ABCEDEA:26,5246964500087	ACBEDFA:26,5299313829701
ACDEBFA:24,1167849269469	ABCEFDA:25,2510261616084	ACBEFDA:25,2562610945698
ACDEFBA:32,0390290566438	ABCFDEA:23,5820688202658	ACBFDEA:23,6403356231699
ACDFBEA:23,0134042969343	ABCFEDA:23,2622736925024	ACBFEDA:23,3205404954065
ACDFEBA:22,371434621225	ABDCEFA:25,8907790282609	ACDBEFA:25,8960139612223
ACEBDFA:19,9053207060695	ABDCFEA:22,948151398518	ACDBFEA:23,0064182014221
ACEBFDA:21,2597197808392	ABDECEA:28,1179142392329	ACDEBFA:28,0112480987867
ACEDBFA:29,5729151414883	ABDEFCA:26,9169557533703	ACDEFBA:26,8050546799627
ACEDFBA:27,5482054023432	ABDFCEA:27,1640390785961	ACDFBEA:27,0573729381499
ACEFBDA:31,2066736496813	ABDFECA:28,9057082224763	ACDFEBA:28,740775279126
ACEFDBA:27,8275648357665	ABECDEA:29,9417337649887	ACEBDFA:30,1119016413004
ACFBDEA:33,1368035324044	ABECFDA:30,8951986875604	ACEBFDA:30,9534654904645
ACFBEDA:25,9269888017678	ABEDCEA:27,9529812958826	ACEDBFA:28,176181042137
ACFDBEA:23,4692090969856	ABEDFCA:30,9679104900981	ACEDFBA:31,0209423600408
ACFDEBA:22,547879987853	ABEFCDA:26,6793110074823	ACEFBDA:26,9025107537368
ACFEBDA:26,2063482351911	ABEFDCA:28,740775279126	ACEFDBA:28,9057082224763
ACFEDBA:32,4948338566951	ABFCDEA:25,0633855360825	ACFBDEA:25,2335534123942
ADBCEFA:27,0992841933704	ABFCEDA:28,9594780883971	ACFBEDA:28,9647130213585
ADBCFEA:30,6631725842864	ABFDCEA:27,0521380051885	ACFDBEA:27,1692740115575
ADBECFA:21,6022614750688	ABFDECA:31,0209423600408	ACFDEBA:30,9679104900981
ADBEFCA:26,2063482351911	ABFECDA:26,732342877425	ACFEBDA:26,8494788837941
ADBFCEA:30,166475280475	ABFEDCA:26,8050546799627	ACFEDBA:26,9169557533703
ADBFECA:31,2066736496813	ACBDEFA:22,4789766462423	ADBCEFA:22,4062648437046
ADCBEFA:21,643153978829	ACBDFEA:21,5251014856054	ADBECFA:19,4636372139618
ADCBFEA:30,2073677842352	ACBEDFA:26,5299313829701	ADBEFCA:28,0504373696567
ADCEBFA:21,1464566750175	ACBEFDA:25,2562610945698	ADBFCEA:25,1608416098565
ADCEFBA:29,0687008047145	ACBFDEA:23,6403356231699	ADBFECA:26,9025107537368
	ACBFEDA:23,3205404954065	ADCBFEA:22,2413319003543
	ACDBEFA:25,8960139612223	ADCBFEA:19,3517361405542
	ACDBFEA:23,0064182014221	ADCEBFA:27,9385362962491
	ACDEBFA:28,0112480987867	ADCEFBA:26,732342877425
	ACDEFBA:26,8050546799627	

```

ADCFBEA:24,7103450659335
ADCFEBA:24,0683753902243
ADEBCFA:21,8195993454569
ADEBFCA:25,9269888017678
ADECBFA:26,8199247599471
ADECFBA:29,2451461713424
ADEFBFA:31,4240115200694
ADEFCBA:29,7418434751539
ADFBCEA:25,7165441299346
ADFBCEA:21,2597197808392
ADFCBEA:20,7162187154444
ADFCBEA:19,5775517359236
ADFEBFA:21,7564170846506
ADFECBA:25,0745744542253
AEBCDFA:18,9060148406235
AEBCFDA:20,7162187154444
AEBDCFA:23,3559459911639
AEBDFCA:23,4692090969856
AEBFCDA:24,7103450659335
AEBFDCA:23,0134042969343
AECBDFB:24,3621450551649
AECBFDA:25,7165441299346
AECDBFA:28,3562714056541
AECDFBA:26,331561666509
AECFDBA:30,166475280475
AECFDBA:26,7873664665602
AEDBCFA:29,0294140760935
AEDBFCA:33,1368035324044
AEDCBFA:28,5736092760423

```

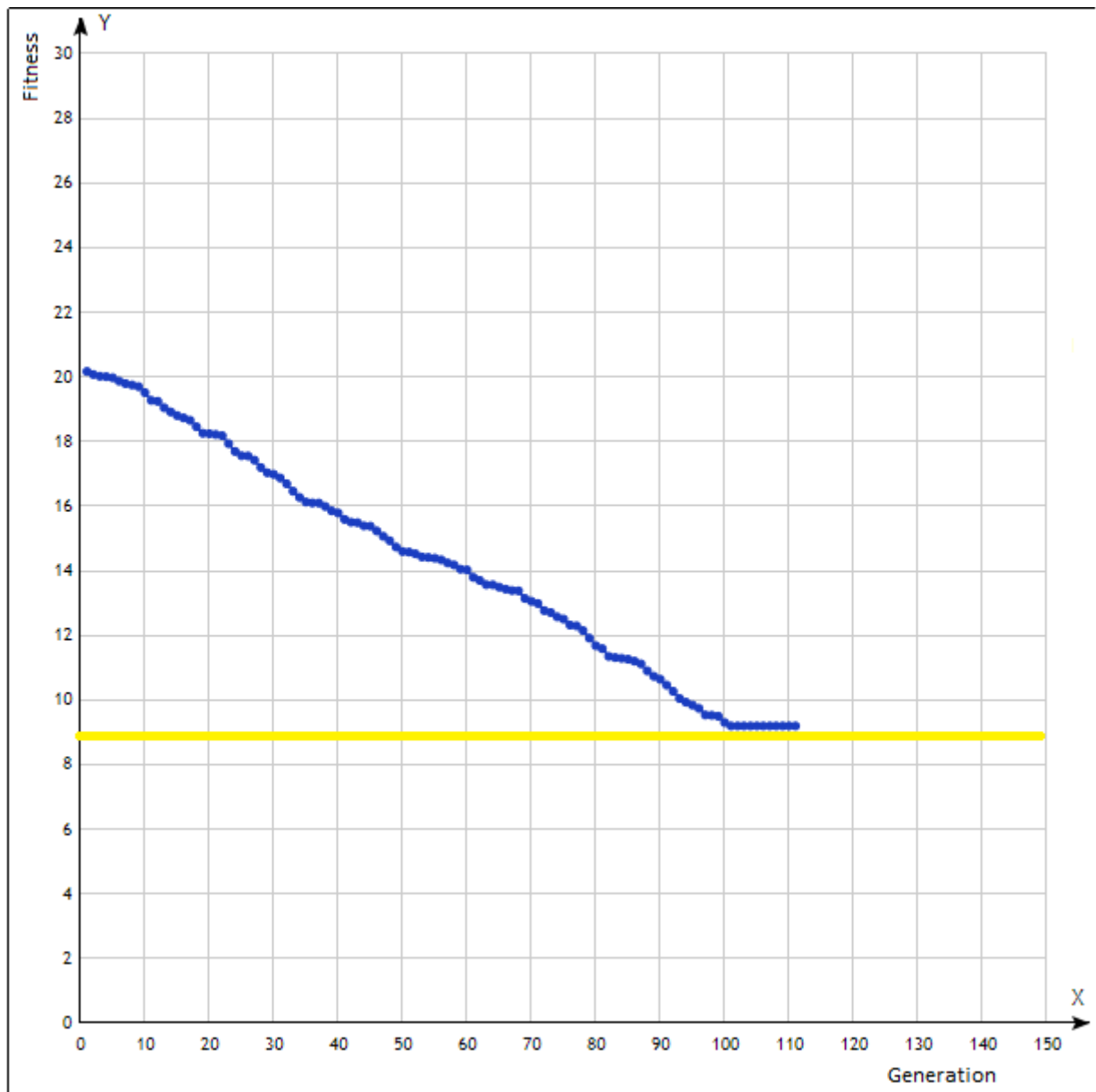
Minimum distance:

```

Minimum:ABECDFB:17,7673478611027
Minimum:AFDCEBA:17,7673478611027

```

Graphic of evolution



Yellow – minimum of function.

Blue – minimum of evolution algorithm.

Best fitness on 1, 36, 37, 70, 71, 72, 73, 110, 111 penultimate and last generations:

