

Zykov Kirill

Prisoners Dilemma

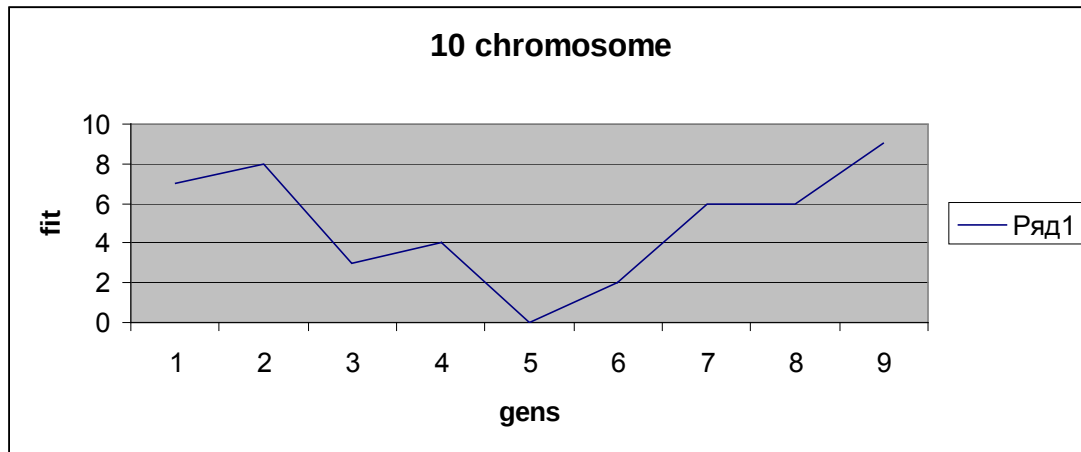
```
C:\WINDOWS\system32\cmd.exe

-----
0110000101101100110100010001110110111100111100111000100001110001 || 0
01011000010001010000101101110110001111111111110011100010100101010 || 5
01011000010001010000101101110110001111111111110011100010100101010 || 5
0110000101101100110100010001110110111100111100111000100001110001 || 0
0110000101101100110100010001110110111100111100111000100001110001 || 0
0110000101101100110100010001110110111100111100111000100001110001 || 0
01011000010001010000101101110110001111111111110011100010100101010 || 5
01010111111100110100010010101100010101001110001011101101110110 || 8
01010111111100110100010010101100010101001110001011101101110110 || 8
-----
1001011111000001101110001110010111001011000100101100001110010010 || 3
1001011111000001101110001110010111001011000100101100001110010010 || 3
1001011111000001101110001110010111001011000100101100001110010010 || 3
1100011010111110011100100011000001110000001111000100101001100011 || 0
01000110101111111101010111011000110001010100000101001000100111 || 8
1100011010111110011100100011000001110000001111000100101001100011 || 0
100101111000001101110001110010111001011000100101000011100001110010010 || 3
010001110101111111101010111011000110001010100000101001000100111 || 8
1100011010111110011100100011000001110000001111000100101001100011 || 0
1001011111000001101110001110010111001011000100101100001110010010 || 3
-----
0110101001011010111100011011011100100100100011011111000010001010 || 0
1000111011111000110111001011010000100100100100111100111010000111 || 7
```

```
C:\WINDOWS\system32\cmd.exe

1010001110000101000000100000100111100010001101001010001011110100 || 0
1100000010011011110010010011010000110001011011110000011101010111 || 0
111010111000110100111001111000011000010111010101100010011010110 || 0
1100010001000100001011111001100100110010110011100011101110100111 || 0
1000110001101100100111110111110100101001110010000101000000101001 || 0
0100100011110100011000011111001101110100000001110111100000100010 || 0
1011101101100100101111010101011101101011001110011100101001000100 || 0
110100010111000011011111110011001011000101111011100111101111000 || 0
1010000010011011111001010110101010000000001000011110110100010110 || 0
00001011001011000011011101001011110100000100010101011111010110 || 0
-----
1000000011110000011101010001110100001001011000001100001101111011 || 0
1000000011110000011101010001110100001001011000001100001101111011 || 0
00001011011010011110111010111101100011101001010111110101010110 || 8
00001011011010011110111010111101100011101001010111110101010110 || 8
01000101101101111111010010110010000010010111011101111110010011 || 5
1011101101100110101111110011111111111100100000011100101101001100 || 9
010000110011011001011111101110110101000001010001111010100101011 || 3
1000000011110000011101010001110100001001011000001100001101111011 || 0
0011010101101100110111111010101111011000110010100001100011111010 || 4
010001011011011111111010010110010000010010111011101111110010011 || 5
-----
1100100111101011101011110101010001011011011010101010101010001100 || 2
1100100111101011101011110101010001011011011010101010101010001100 || 2
101000110011011000111101110011111010100110101010101000100001010 || 0
```

winning chromosome usually is found early and on later iterations fitness starts to decline.



so here we have example of two playing chromosome in beginning, middle and end of the game.

101110110110011010111111001111111111001000000011100101101001100 || 9
 010001011011011111111110100101100100000100101110111011111110010011 || 5

0 → 0 1 → 1
 1 → 0
 1 → 0

1 → 0 1 → 0
 0 → 1
 0 → 0

1 → 0 0 → 1
 1 → 1
 1 → 0

Here we data about scores in different stages of game.(scores are to the left of chromosomes)

Early

1||1

177||1010110000111100110101111010011010010100010111101101000100111111

142||011011110000000010001101001001011100111000100001101011001101011

2||2

162||1010110000111100110101111010011010010100010111101101000100111111

152||1111001110011100010111010110110010000100110011101001000100011111

3||3

171||1010110000111100110101111010011010010100010111101101000100111111

146||101010010001111001011111010110000100100000110001001000100111111

4||4

171||1010110000111100110101111010011010010100010111101101000100111111

146||0110011100001000010001100100011011100111010110011110011001001110

5||5

165||1010110000111100110101111010011010010100010111101101000100111111

150||1100010100111100100011011000000111011011101101101011010010011100

6||6

159||1010110000111100110101111010011010010100010111101101000100111111

154||0111100111111000111001000100111110110100101101001001100001101110

7||7

150||1010110000111100110101111010011010010100010111101101000100111111

160||1110110111001111010100110000000111001010010011111011111110101101

8||8

183||1010110000111100110101111010011010010100010111101101000100111111

138||0101111000111010110000010010000001000110011001101100100101100001

9||9

165||1010110000111100110101111010011010010100010111101101000100111111

150||1010010010001110101100110011010111010001001000011011101111010011

10||10

171||1010110000111100110101111010011010010100010111101101000100111111

146||1010100100011110010111111010110000100100000110001001000100111111

11||11

177||1010110000111100110101111010011010010100010111101101000100111111

142||011011110000000010001101001001011100111000100001101011001101011

12||12

171||1010110000111100110101111010011010010100010111101101000100111111

146||1010100100011110010111111010110000100100000110001001000100111111

13||13

162||1010110000111100110101111010011010010100010111101101000100111111

152||1111001110011100010111010110110010000100110011101001000100011111

14||14

177||1010110000111100110101111010011010010100010111101101000100111111

142||011011110000000010001101001001011100111000100001101011001101011

15||15

171||1010110000111100110101111010011010010100010111101101000100111111

146||0110011100001000010001100100011011100111010110011110011001001110

17||17

171||1010110000111100110101111010011010010100010111101101000100111111

146||1010100100011110010111111010110000100100000110001001000100111111

18||18

171||1010110000111100110101111010011010010100010111101101000100111111
146||0110011100001000010001100100011011100111010110011110011001001110
19||19
171||1010110000111100110101111010011010010100010111101101000100111111
146||0110011100001000010001100100011011100111010110011110011001001110

Middle

0||0
152||1111001110011100010111010110110010000100110011101001000100011111
162||1010110000111100110101111010011010010100010111101101000100111111
1||1
173||1111001110011100010111010110110010000100110011101001000100011111
148||011011110000000010001101001001011100111000100001101011001101011
3||3
167||1111001110011100010111010110110010000100110011101001000100011111
152||1010100100011110010111111010110000100100000110001001000100111111
4||4
167||1111001110011100010111010110110010000100110011101001000100011111
152||0110011100001000010001100100011011100111010110011110011001001110
5||5
161||1111001110011100010111010110110010000100110011101001000100011111
156||1100010100111100100011011000000111011011101101101011010010011100
6||6
155||1111001110011100010111010110110010000100110011101001000100011111
160||0111100111111000111001000100111110110100101101001001100001101110
7||7
146||1111001110011100010111010110110010000100110011101001000100011111
166||1110110111001111010100110000000111001010010011111011111110101101
8||8
179||1111001110011100010111010110110010000100110011101001000100011111
144||0101111000111010110000010010000001000110011001101100100101100001
9||9
161||1111001110011100010111010110110010000100110011101001000100011111
156||1010010010001110101100110011010111010001001000011011101111010011
10||10
167||1111001110011100010111010110110010000100110011101001000100011111
152||1010100100011110010111111010110000100100000110001001000100111111
11||11
173||1111001110011100010111010110110010000100110011101001000100011111
148||011011110000000010001101001001011100111000100001101011001101011
12||12
167||1111001110011100010111010110110010000100110011101001000100011111
152||1010100100011110010111111010110000100100000110001001000100111111
14||14
173||1111001110011100010111010110110010000100110011101001000100011111
148||011011110000000010001101001001011100111000100001101011001101011
15||15
167||1111001110011100010111010110110010000100110011101001000100011111
152||0110011100001000010001100100011011100111010110011110011001001110

16||16
152||1111001110011100010111010110110010000100110011101001000100011111
162||1010110000111100110101111010011010010100010111101101000100111111
17||17
167||1111001110011100010111010110110010000100110011101001000100011111
152||1010100100011110010111111010110000100100000110001001000100111111
18||18
167||1111001110011100010111010110110010000100110011101001000100011111
152||0110011100001000010001100100011011100111010110011110011001001110
19||19
167||1111001110011100010111010110110010000100110011101001000100011111
152||0110011100001000010001100100011011100111010110011110011001001110

Late

1||1
181||1110110111001111010100110000000111001010010011111011111110101101
136||011011110000000010001101001001011100111000100001101011001101011
2||2
166||1110110111001111010100110000000111001010010011111011111110101101
146||1111001110011100010111010110110010000100110011101001000100011111
3||3
175||1110110111001111010100110000000111001010010011111011111110101101
140||1010100100011110010111111010110000100100000110001001000100111111
4||4
175||1110110111001111010100110000000111001010010011111011111110101101
140||0110011100001000010001100100011011100111010110011110011001001110
5||5
169||1110110111001111010100110000000111001010010011111011111110101101
144||1100010100111100100011011000000111011011101101101011010010011100
6||6
163||1110110111001111010100110000000111001010010011111011111110101101
148||0111100111111000111001000100111110110100101101001001100001101110
8||8
187||1110110111001111010100110000000111001010010011111011111110101101
132||0101111000111010110000010010000001000110011001101100100101100001
9||9
169||1110110111001111010100110000000111001010010011111011111110101101
144||1010010010001110101100110011010111010001001000011011101111010011
10||10
175||1110110111001111010100110000000111001010010011111011111110101101
140||1010100100011110010111111010110000100100000110001001000100111111
11||11
181||1110110111001111010100110000000111001010010011111011111110101101
136||011011110000000010001101001001011100111000100001101011001101011
12||12
175||1110110111001111010100110000000111001010010011111011111110101101
140||1010100100011110010111111010110000100100000110001001000100111111
13||13
166||1110110111001111010100110000000111001010010011111011111110101101

146||1111001110011100010111010110110010000100110011101001000100011111
14||14
181||1110110111001111010100110000000111001010010011111011111110101101
136||01101111100000000010001101001001011100111000100001101011001101011
15||15
175||1110110111001111010100110000000111001010010011111011111110101101
140||0110011100001000010001100100011011100111010110011110011001001110
16||16
160||1110110111001111010100110000000111001010010011111011111110101101
150||1010110000111100110101111010011010010100010111101101000100111111
17||17
175||1110110111001111010100110000000111001010010011111011111110101101
140||1010100100011110010111111010110000100100000110001001000100111111
18||18
175||1110110111001111010100110000000111001010010011111011111110101101
140||0110011100001000010001100100011011100111010110011110011001001110
19||19
175||1110110111001111010100110000000111001010010011111011111110101101
140||0110011100001000010001100100011011100111010110011110011001001110