

# Kiryl Kiryluk

## Exercise 3

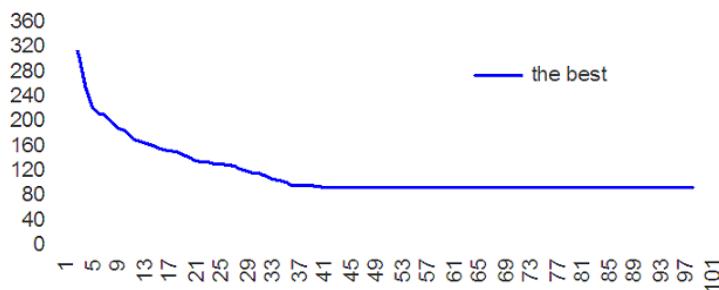
1. Simulate 100 dogs in the gridworld  $(0,0)-(1000,1000)$  with sausage at  $(800,800)$  where all dogs start from  $(500,500)$  looking for the sausage by:
  - (1) assuming all dog has a chromosome whose each of 1000 genes are 1, 2, 3 or 4,
  - (2) moving step by step according to his/her chromosome,
  - (3) with 1, 2, 3, 4 meaning a movement toward up, down, right, left, respectively.

### Uniform-Crossover

Lucky dog

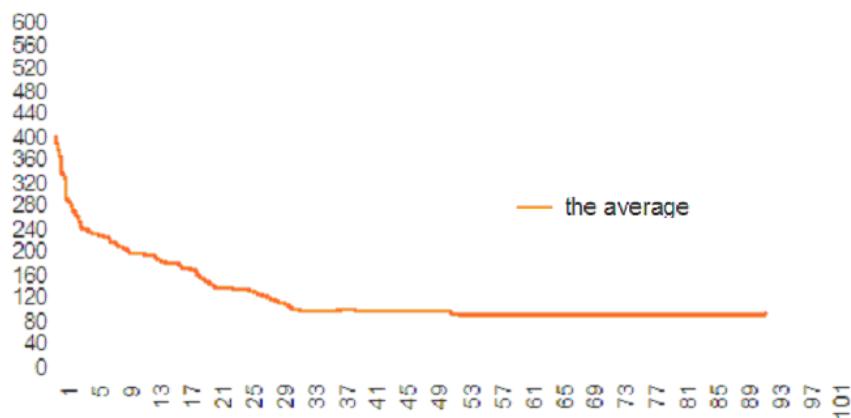


Lucky dog

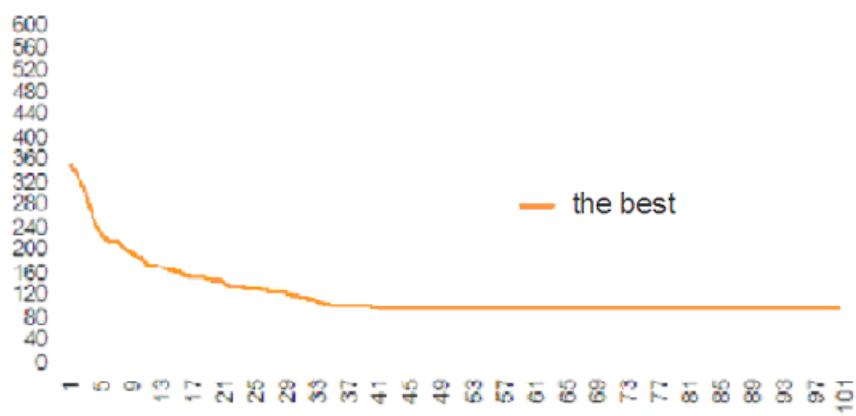


### One-Point crossover

Lucky dog



Lucky dog



Lucky dog

