Size: 53

Number of Conflicts: 0

Generations: 7152

Time: 172.097092 seconds

41, 18, 24, 40, 17, 43, 38, 16, 12, 30,

44, 14, 35, 3, 26, 21, 42, 13, 37, 49,

47, 52, 15, 4, 53, 7, 50, 11, 1, 20,

45, 28, 34, 27, 23, 10, 36, 9, 48, 46,

25, 33, 22, 19, 39, 8, 32, 5, 31, 2,

6, 29, 51

\*Board is 1-Based

**What is your population size?**

My genetic algorithm starts with a population size of n, or 53 in my case, which is the size of the problem.

**How do you select the parents to breed?**

In each generation, n pairs of parents are selected randomly and then mated

**How many children do you breed at a pass (is it 1, as in class, or some other scheme)?**

Two children are produced from each pair.

**How do you select the pivot point (for the gene splicing)?**

Children are bred by selecting a random pivot point and then crossing over the two parents.

**How do you decide when to mutate?**

There is a 5% chance of children undergoing mutation.

**What is your mutation?**

When a child is mutated, two random numbers in the child’s position list are swapped.

**What happens if a child is produced that is identical to an already existing population member?**

Duplicate children are not a problem because the population is stored in a Set, which does not add replicate items.

**What happens if the two parents selected have the same genes?**

In my genetic algorithm, there is no special method of dealing with two parents that have the same genes.

**Additional Info:**

After the mating process, the weakest C boards, such that C = Current Population Size – Initial Population Size, are culled from the population, leaving a population with the same size as the initial one.