Schmidt László FEBFR8

problems to solve: 13. Hypergraph coloring

Graph coloring is an NP complete problem.

I can't prove that this program gives the minimal coloring number.

It is only an aproximation with Metaheuristic.

I wrote 3 solver

Trivial, Gready, and Tabu. Thay are in solver.py

The trivial and gready is preaty straight forward i won't explain.

For the Tabu search i commented the code in the solver.py

I write chromatic for the coloring number, but it is not proven that

it is the cromatic number of the graph, it just a was a good name for the variable.

Tabu solver:

1. get lover and upperbound for the coloring.

2. start from the upper bound and run the algorythm to the lover bound

3. if we find proper coloring we save it

4. if not and run out of iterations we exit the search and the last

saved proper coloring will be the answer.

You can run it with :

python .\color.py