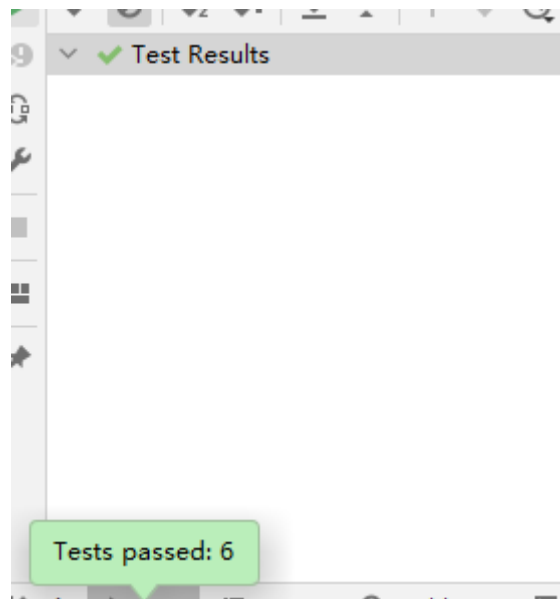# Project 2 Graph Coloring

1. Description of algorithm

The program solves the graph coloring problem using backtracking. It implements minimum remaining value heuristic and most constrained variables heuristic to select variables. It implements the least constraining heuristic to select values from a variable. For each variable, it uses AC3 to propagate constrains.

2. To run the main program, simple type: python3 main.py <path_to_test_file> where path_to_test_file is the path to the input file.
3. To run unit test, simply type: python3 test.py
4. Test result:

The figure shows that all tests have been passed.