**Multi-Grid**

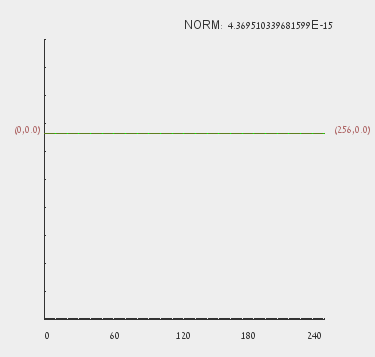
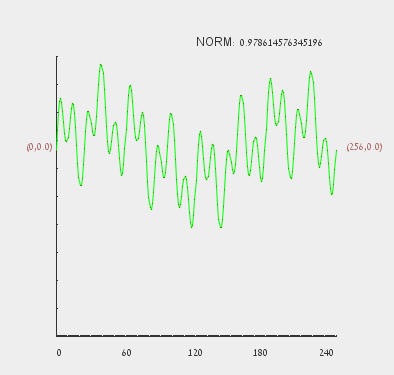
One-dimensional boundary value problem:

, Grid:

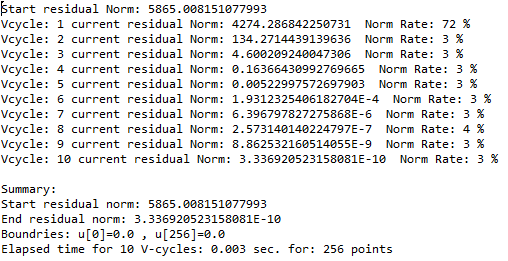
For

**Initial guess:**

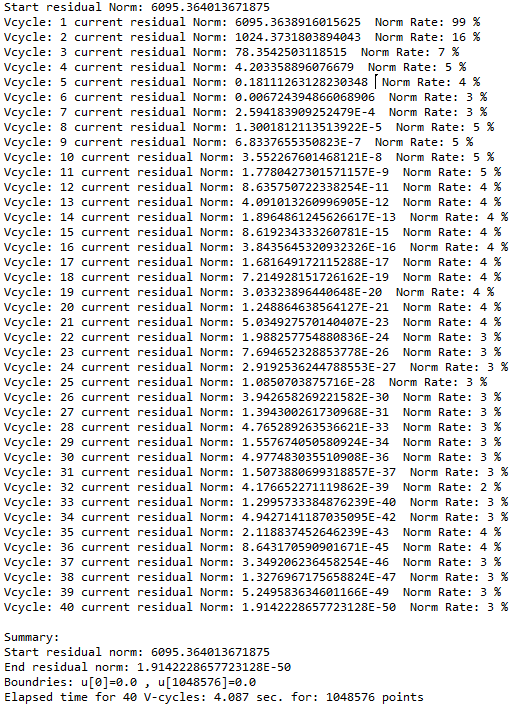
For boundaries: , MY CUSTOM GRAPH:

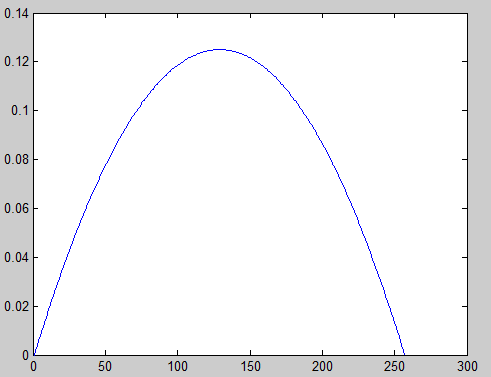
Output result:



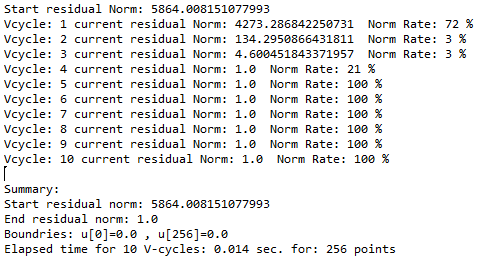
Execution result for 2^20 points and 40 V-cycles:



For we expect to get negative parabola: Now with Matlab graph

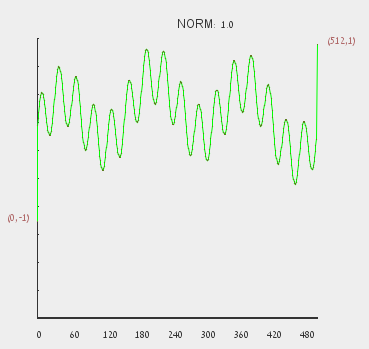
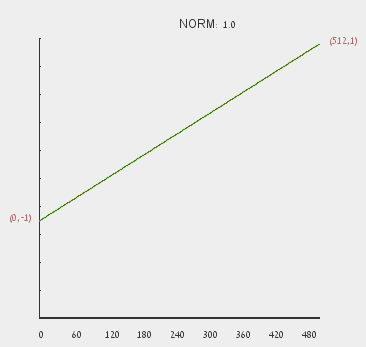


Output result:



**Initial guess:**

For boundaries:, for **N = 512**, MY CUSTOM GRAPH:

Output result:

