

C++11 code 11.1.7: Sub-problem (11-1.i), excerpt of `main()` → [GitLab](#)

```
2  const unsigned int N = 100;
3  Eigen::VectorXd x = Eigen::VectorXd::LinSpaced(N + 1, -1.0, 4.0);
4  Eigen::VectorXd mu03 = BurgersEquation::solveBurgersGodunov(0.3, N);
5  Eigen::VectorXd mu30 = BurgersEquation::solveBurgersGodunov(3.0, N);
6
7  // Write the solutions to a file that can be used for plotting.
8  std::ofstream solution_file;
9  solution_file.open("solution.csv");
10 solution_file << x.transpose().format(BurgersEquation::CSVFormat)
11             << std::endl;
12 solution_file << mu03.transpose().format(BurgersEquation::CSVFormat)
13             << std::endl;
14 solution_file << mu30.transpose().format(BurgersEquation::CSVFormat)
15             << std::endl;
16 solution_file.close();
17 std::cout << "Generated solution.csv" << std::endl;
18 systemcall::execute(
19     "python3 ms_scripts/plot_solution.py solution.csv "
20     "solution.eps");
```