

C++ code 11.3.11: Sub-problem (11-3.i): function `findTimestep()` → [GitLab](#)

```
2 bool blowup(const Eigen::VectorXd &mu) {
3     return mu.minCoeff() < 0.0 || mu.maxCoeff() > 2.0;
4 }
5
6 unsigned int findTimesteps() {
7     const unsigned int N = 600;
8     unsigned int ML = 100;
9     unsigned int MR = 200;
10
11     for (int i = 0; i < 100; ++i) {
12         if (ML == MR) {
13             return MR;
14         }
15         unsigned int M = (unsigned int)(0.5 * (ML + MR));
16         if (blowup(solveSineConsLaw(&sineClawRhs, N, M))) {
17             ML = M + 1;
18         } else {
19             MR = M;
20         }
21     }
22
23     return MR;
24 }
```