

## C++ code 11.4.17: Sub-problem (11-4.j): function `solveGodunov()` → [GITHUB](#)

```
2 Eigen::VectorXd solveGodunov(const Eigen::VectorXd &u0, double T,  
3                             unsigned int M) {  
4     double tau = T / M;  
5     double h = Constant::e * tau;  
6     unsigned int N = u0.size();  
7     Eigen::VectorXd mu = u0;  
8  
9     for (int i = 0; i < M; ++i) {  
10         for (int j = N - 1; 0 < j; --j) {  
11             mu(j) = mu(j) - tau / h * (std::exp(mu(j)) - std::exp(mu(j - 1)));  
12         }  
13     }  
14     return mu;  
15 }
```