First, complete every functions from the matrix.h file. In SMatrix.cpp, use inheritance to write SMatrix(int n), SMatrix(const Matrix& M), setSize(const int n), so we don't need to rewrite the whole thing. Need to make sure that constructor inheritance has a different way to write it. After that, complete the vector.cpp. Second, we start to do the main program. Although the example didn't show it, the pdf asked us to input the rank of the linear equation. So, I write cin >> n. Create square matrix n*n and vector. Use setMatrix to create a random element. Use cout, for, and getElement to print out the constant vector of the equation. Use

```
SMatrix Ai = C.vector_replace(i, A);
    X.setElement(i, 0, Ai.determinant() / A.determinant());
```

to get the solution of the equation. Last use Matrix sol = A * X - C to check if it is correct.