1. **Write a program contains a class Data that has data members: A[20] (double), B[20] (double), n (number of elements of A and B). This class contains the following:**
    a. **Operator >> (only A).**
    b. **Function to set the elements of B such that each B_i is equal to $\sum_{j=0}^{i+1} \frac{n-i+j}{A_j}$ ($A_j \neq 0$ *if not increase its value by* 1).**
    c. **Operator << (only A).**
    d. **Operator [ ] (only B).**
    e. **Operator double () (returns the average of elements of A).**
    f. **Operators: - = , ++ (postfix, prefix) (only A and reset the elements of B)**
    g. **Operator >= (only B)**

It contains a friend function to compare between two objects and return max object. In main function, define several objects and apply all functions and operators to them.

2. **Write a program contains a class Mark that has data members: M[20][20] (double), n (dimension of matrix), m (dimension of matrix). This class contains the following:**
    i. **Operator >> (only for the elements of M except last row),**
    ii. **Function to set the elements of last row such that each element $M_{n-1,i} = \sum_{j=0}^{n-2} \frac{M_{j,i}}{n-1}$ (for i=0…m-1).**
    iii. **operator << (only M except last row).**

iv. **Operator [ ] (only last row).**

v. **Operators: += , -- (postfix, prefix), >.**

vi. **Operator double () (returns the average of diagonal elements of M).**

It contains a friend function to compare between two objects and display min object. In main function, define several objects and apply all functions and operators on them.