```cpp
#include<iostream>

using namespace std;

class Matrix {
    int ar[4];
public:
    Matrix(int a1 = 0, int a2 = 0, int b1 = 0, int b2 = 0){
        ar[0] = a1;
        ar[1] = a2;
        ar[2] = b1;
        ar[3] = b2;
    }
    void show(string name);

    Matrix operator+(Matrix op);
    Matrix& operator+=(Matrix op);
    Matrix& operator>>(int m[]);
    Matrix& operator<<(int m[]);
};

void Matrix::show(string name){
    cout << name << " = { ";
    for(int i=0; i<4; i++){
        cout << ar[i] << " ";
    }
    cout << "}" << endl;
}

Matrix Matrix::operator+(Matrix m){
    Matrix tmp;
    for(int i=0; i<4; i++){
        tmp.ar[i] = this->ar[i] + m.ar[i];
    }
    return tmp;
}
```

```cpp
Matrix& Matrix::operator+=(Matrix m){
    for(int i=0; i<4; i++){
        this->ar[i] = this->ar[i] + m.ar[i];
    }
    return *this;
}
Matrix& Matrix::operator>>(int m[]){
    for(int i=0; i<4; i++){
        m[i] = this->ar[i];
    }
    return *this;
}
Matrix& Matrix::operator<<(int m[]){
    for(int i=0; i<4; i++){
        this->ar[i] = m[i];
    }
    return *this;
}

int main() {
    Matrix a(1, 2, 3, 4), b(2, 3, 4, 5), c;
    c = a + b;
    a.show("a");
    b.show("b");
    c.show("c");

    a += b;
    a.show("a");

    int x[4], y[4] = {5, 6, 7, 8};
    a >> x; // a의 각 원소를 배열 x에 복사.
    b << y; // 배열 y의 원소 값을 b의 각 원소에 설정

    cout << "x = { ";
    for (int i = 0; i < 4; i++)
        cout << x[i] << ' '; // x[] 출력
    cout << "}" << endl;
    b.show("b");
}
```

```
PS D:\2021-2\Cpp Programing\cpp> ./08_07
a = { 1 2 3 4 }
b = { 2 3 4 5 }
c = { 3 5 7 9 }
a = { 3 5 7 9 }
x = { 3 5 7 9 }
b = { 5 6 7 8 }
```