

☆ Matrix

WAP to overload +,- and * for matrix addition subtraction and multiplication.

Sample Input

- 222
- 3 3 3
- 111
- 111
- 111
- 111

Sample Output

Addition of two matrices

- 3 3 3
- 444
- 222

Subtraction of two matrices

- 111
- 222
- 000

Multiplication of two matrices

- 666
- 999
- 3 3 3

Explanation

Sample Input

First three lines are the input for first matrix next three lines are the input for second matrix

Sample Output

Are the result of addition, subtraction and multiplication of two matrices given in sample input

each element is separated by space in each row

YOUR ANSWER

We recommend you take a quick tour of our editor before you proceed. The timer will pause up to 90 seconds for the tour. Start tour





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Original code







```
1 ▶ #include ↔
 2
    using namespace std;
 3
    //nter your code here.
 4
    class Matrix
 5
 6
         int mat[3][3];
 7
 8
    public:
 9
     int i,j,k;
10
        Matrix()
11 ▼
12
             for(i=0;i<3;i++)
13 ▼
             {
14
                 for(j=0;j<3;j++)</pre>
15
                      cin>>mat[i][j];
16
             }
17
18
        Matrix operator+(Matrix c)
19 ▼
20
             Matrix t;
21
             for(i=0;i<3;i++)
22 ▼
             {
23
                 for(j=0;j<3;j++)
24
                      t.mat[i][j]=mat[i][j]+c.mat[i][j];
25
             }
26
             return t;
27
28
        Matrix operator-(Matrix c)
29 ▼
30
             Matrix t;
31
             for(i=0;i<3;i++)
२つ ▼
```



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5d 13h to test end

```
36
                      return t;
\equiv
         37
                  }
         38
                  Matrix operator*(Matrix c)
8
         39 ▼
         40
                      Matrix t;
         41
                 for(i = 0; i < 3; i++)
                      for(j = 0; j < 3; j++)
         42
         43 ▼
                      {
2
         44
                           t.mat[i][j]=0;
         45
         46
                  for(i = 0; i < 3; i++)
3
         47
                      for(j = 0; j < 3; j++)
                           for(k = 0; k < 3; k++)
         48
4
         49 ▼
                           {
         50
                               t.mat[i][j] += mat[i][k] * c.mat[k][j];
         51
                           }
5
```

```
52
              return t;
53
         }
         void Show()
54
55 ▼
              cout<<"\n";</pre>
56
57
              int i,j;
58
              for(i=0;i<3;i++)
59 ▼
              {
60
              for(j=0;j<3;j++)
                  cout<<mat[i][j]<<" ";
61
                if(i<2)
62
              cout<<"\n";</pre>
63
64
              }
65
         }
66
    };
67
68 ▼ int main() {
69
        Matrix M1,M2,M3;
70
         M3=M1+M2;
         cout<<"Addition of two matrices";</pre>
71
72
         M3.Show();
73
         M3=M1-M2;
         cout<<"\nSubtraction of two matrices";</pre>
74
         M3.Show();
75
76
         M3=M1*M2;
         cout<<"\nMultiplication of two matrices";</pre>
77
         M3.Show();
78
79
         return 0;
80
    }
                                                             Line: 44 Col: 15
```



6

7

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(S) 5d 13h to test end



▲ Download sample test cases The input/output files have Unix line endings. Do not use Notepad to edit them on windows.

Compiled successfully. All available test cases passed!





2

3

4

5

```
Testcase 1: Success
```

Test Case #1:

Test Case #2:

Input [Download] 6 2 2 2 3 3 3 7 1 1 1 1 1 1 1 1 1 1 1 1 **Your Output** Addition of two matrices 3 3 3 4 4 4 2 2 2 Subtraction of two matrices 1 1 1 2 2 2 0 0 0 Multiplication of two matrices 6 6 6 9 9 9 3 3 3 **Expected Output [L Download**] Addition of two matrices 3 3 3 4 4 4 2 2 2 Subtraction of two matrices 1 1 1 2 2 2 0 0 0 Multiplication of two matrices () 5d 13h CSE4E_Practice_OP_OverLoading to test end =**Testcase 2: Success Your Output** Output hidden 1 2 About Privacy Policy Terms of Service 3 4