

<https://course.acciojob.com/idle?question=0be73469-8af8-4cd5-98c7-c9be1a5a4deb>

● EASY

● Max Score: 20 Points

## Matrix Multiplication

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Given two square Matrices **A** and **B** each of **N** rows and **N** columns, you need to multiply the two matrices. Return the product matrix.

NOTE You need to complete the given function. The input and printing of output will be handled by the driver code.

### Input Format:

The first line contains the number of test cases.

For each test case: The first line has 'N', the dimensions of the matrices.

The next **N** rows will have **N** elements each. These are the elements of matrix **A**.

The next **N** rows will have **N** elements each. These are the elements of matrix **B**.

### Output Format:

For each test case return your answer.

### Example 1:

Input:

```
1
2
1 1
1 1
2 2
2 2
```

Output:

```
4 4
4 4
```

Explanation:

We multiply the two matrices.

## Example 2:

Input:

```
1
3
1 1 1
2 2 2
3 3 3
1 1 1
2 2 2
3 3 3
```

Output:

```
6 6 6
12 12 12
18 18 18
```

Explanation:

We multiply the two matrices.

## Constraints:

$1 \leq T \leq 10$

$1 \leq N \leq 50$

### Topic Tags

- **2D-Arrays**

# My code

// in java

```
import java.util.*;
```

```
import java.lang.*;
```

```
import java.io.*;
```

```
public class Main
```

```
{
```

```
    public static void main (String[] args) throws java.lang.Exception  
    {
```

```
        //your code here
```

```
        Scanner s=new Scanner(System.in);
```

```
        int t=s.nextInt();
```

```
        for(int l=0;l<t;l++)
```

```
        {
```

```
            int n=s.nextInt();
```

```
            int arr[][]=new int [n][n];
```

```
                int arrb[][]=new int [n][n];
```

```
                int ans[][]=new int [n][n];
```

```
            for(int i=0;i<n;i++)
```

```
                for(int j=0;j<n;j++)
```

```
                    arr[i][j]=s.nextInt();
```

```
                for(int i=0;i<n;i++)
```

```
                    for(int j=0;j<n;j++)
```

```
                        arrb[i][j]=s.nextInt();
```

```
            for(int i=0;i<n;i++)
```

```
            {
```

```
                for(int j=0;j<n;j++)
```

```
                {
```

```
        int sum=0;
        for(int z=0;z<n;z++)
        {
            sum+=(arr[i][z]*arrb[z][j]);
        }
        ans[i][j]=sum;
    }
}
for(int i=0;i<n;i++)
{
    for(int j=0;j<n;j++)
    {
        System.out.print(ans[i][j]+" ");
    }
    System.out.print("\n");
}
}
}
```