

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
void main()
```

```
{
```

```
    int a[3][3], b[3][3], c[3][3]={0}, d[3][3]={0};
```

```
    int i,j,k,m,n,p,q;
```

```
    printf("Enter no. of rows and columns in matrix  
A: ");
```

```
    scanf("%d%d",&m,&n);
```

```
    printf("Enter no. of rows and columns in matrix  
B: ");
```

```
    scanf("%d%d",&p,&q);
```

```
    if(m!=p || n!=q)
```

```
    {
```

```
        printf("Matrix Addition is not  
possible");
```

```
        return;
```

```
    }
```

```
    else if(n!=p)
```

```
    {  
        printf("Matrix Multiplication is not  
possible");  
        return;  
    }  
    else  
    {  
        printf("Enter elements of matrix A: ");  
        for(i=0;i<m;i++)  
            for(j=0;j<n;j++)  
                scanf("%d", &a[i][j]);  
        printf("Enter elements of matrix B: ");  
        for(i=0;i<p;i++)  
            for(j=0;j<q;j++)  
                scanf("%d", &b[i][j]);  
        //Matrix Addition  
        for(i=0;i<m;i++)  
            for(j=0;j<n;j++)
```

```

                                c[i][j] = a[i][j] +
b[i][j];

                                printf("\nResult of Matirx Addition:\n
n");

                                for(i=0;i<m;i++)
                                {
                                    for(j=0;j<n;j++)

                                        printf("%d ", c[i]
[j]);

                                    printf("\n");
                                }

//Matrix Multiplication

                                for(i=0;i<m;i++)

                                    for(j=0;j<q;j++)

                                        for(k=0;k<p;k++)

                                            d[i][j] +=
a[i][k]*b[k][j];

                                printf("\nResult of Matirx
Multiplication:\n");

                                for(i=0;i<m;i++)

```

```
        {  
            for(j=0;j<q;j++)  
                printf("%d ", d[i]  
[j]);  
            printf("\n");  
        }  
    }  
    getch();  
}
```