| S.No: 13 | Exp. Name: ***Write a Program to print Multiplication Table for a given number*** | Date:2023-01-06 |
|---|---|---|



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**Aim:**

Write a program to print the `multiplication table` for a given number with the number of rows in the table.

For example, for a number `2` with `3` rows, the output should be:

```
2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
```

At the time of execution, the program should print the following messages one by one on the console as:

```
Enter an integer number :
Enter number of rows :
```

For example, if the user gives the **input** as:

```
Enter an integer number : 5
Enter number of rows : 4
```

then the program should **print** the result as:

```
5 * 1 = 5
5 * 2 = 10
5 * 3 = 15
5 * 4 = 20
```

**Note:** Do use the **printf()** function with a **newline** character ( `\n` ).

**Source Code:**

Program411.c

```
#include<stdio.h>
int main()
{
   int num,row,i;
   printf("Enter an integer number : ");
   scanf("%i" ,&num);
   printf("Enter number of rows : ");
   scanf("%i",&row);
   for(i=1;i<=row;i++)
   {
      printf("%d * %d = %d\n",num,i,num*i);
   }
}
```

Execution Results - All test cases have succeeded!

| Test Case - 1 |
|---|
| User Output |
| Enter an integer number : 3 |

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```
Enter number of rows :  6
3 * 1 = 3
3 * 2 = 6
3 * 3 = 9
3 * 4 = 12
3 * 5 = 15
3 * 6 = 18
```

| Test Case - 2 |
| --- |
| User Output |
| Enter an integer number :  5 |
| Enter number of rows :  4 |
| 5 * 1 = 5 |
| 5 * 2 = 10 |
| 5 * 3 = 15 |
| 5 * 4 = 20 |

| Test Case - 3 |
| --- |
| User Output |
| Enter an integer number :  12 |
| Enter number of rows :  7 |
| 12 * 1 = 12 |
| 12 * 2 = 24 |
| 12 * 3 = 36 |
| 12 * 4 = 48 |
| 12 * 5 = 60 |
| 12 * 6 = 72 |
| 12 * 7 = 84 |

| Test Case - 4 |
| --- |
| User Output |
| Enter an integer number :  15 |
| Enter number of rows :  10 |
| 15 * 1 = 15 |
| 15 * 2 = 30 |
| 15 * 3 = 45 |
| 15 * 4 = 60 |
| 15 * 5 = 75 |
| 15 * 6 = 90 |
| 15 * 7 = 105 |
| 15 * 8 = 120 |
| 15 * 9 = 135 |
| 15 * 10 = 150 |