



Pattern 6 - Right triangle of 5 multiples

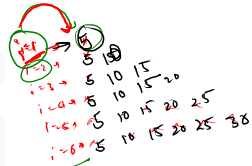
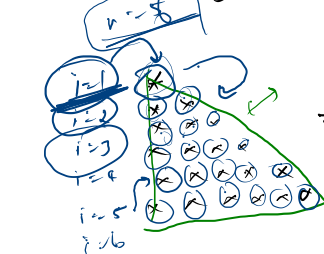
Problem	Submissions	Leaderboard	Discussions
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Take an integer  $n$  as an integer input, and then

$n=6$

Sample Output 0

```
5
5 10
5 10 15
5 10 15 20
5 10 15 20 25
5 10 15 20 25 30
```



```
line 1 row
for (int i=1; i<=n; i++)
{
    int num = 5;
    for (int j=1; j<=i; j++)
    {
        cout << num << " ";
        num++;
    }
    cout << endl;
}
```

5  
5 10  
5 10 15

$i=1, c=6$  (T)  
 $num=5$   
 $j=1, c=1$  (T)  
 $j=2, c=1$  (F) X

$i=3, c=1$  (T)  
 $num=5$   
 $j=1, c=3$  (T)  
 $j=2, c=3$  (T)  
 $j=3, c=3$  (T)  
 $j=4, c=3$  (F)

$i=2, c=6$  (T)  
 $num=5$   
 $j=1, c=2$  (T)  
 $j=2, c=2$  (T)  
 $j=3, c=2$  (F)

5  
5 5  
5 5 5  
5 5 5 5  
5 5 5 5 5  
5 5 5 5 5 5

5  
5 10  
5 10 15  
5 10 15 20  
5 10 15 20 25  
5 10 15 20 25 30

# Pattern 7 - Print a hollow m by n star rectangle.

Problem	Submissions	Leaderboard	Discussions
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Take m and n as an integer input, then print a hollow m by n star rectangle.

Then print hollow star rectangle which has m stars in the first line and m stars in the nth line.

There rectangle should have n lines

and in every line in between should have only first star and then the mth star.

Sample Input 0

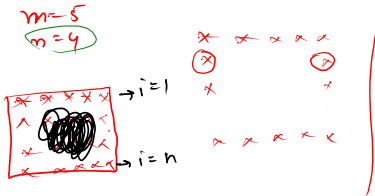
```
5
4
```

Sample Output 0

```

x x x x
x   x   x
x   x   x
x   x   x
x x x x

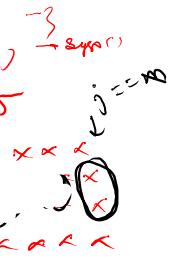
```



```

for (int i = 1; i <= n; i++)
{
    for (int j = 1; j <= m; j++)
    {
        if (i == 1 || i == n || j == 1 || j == m)
            cout << "x";
        else
            cout << " ";
    }
    cout << endl;
}

```



```

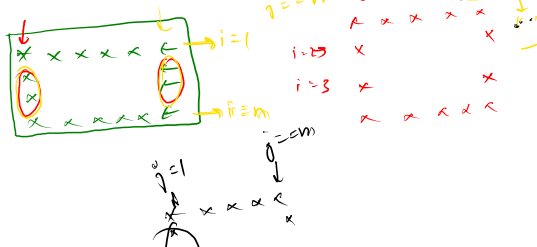
for (int i = 1; i <= n; i++)
{
    for (int j = 1; j <= m; j++)
    {
        if (i == 1 || i == n || j == 1 || j == m)
            cout << "x";
        else
            cout << " ";
    }
    cout << endl;
}

```

```

for (int i = 1; i <= n; i++)
{
    for (int j = 1; j <= m; j++)
    {
        if (i == 1 || i == n || j == 1 || j == m)
            cout << "x";
        else
            cout << " ";
    }
    cout << endl;
}

```



```

i = 1, c = 4 (T)
{
    j = 1, c = 5 (F)
    j = 2, c = 5 (T)
    j = 3, c = 5 (F)
    j = 4, c = 5 (T)
    j = 5, c = 5 (F)
    j = 6, c = 5 (F)
}

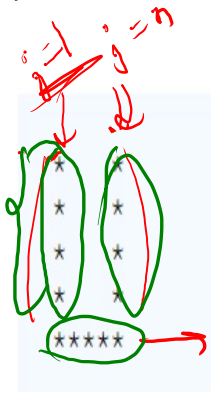
i = 2, c = 4 (T)
{
    j = 1, c = 5 (T)
    j = 2, c = 5 (T)
    j = 3, c = 5 (T)
    j = 4, c = 5 (T)
    j = 5, c = 5 (T)
    j = 6, c = 5 (F)
}

i = 3
i = 4

```



n=5



n=5

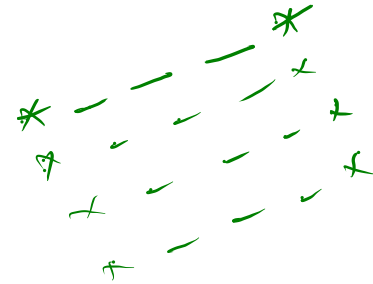
i=1 c=5

```
for(int i=1;i<=n;i++){
    for(int j=1;j<=n;j++){
        if(i==n || j==1 || j==n){
            System.out.print("*");
        }else {
            System.out.print(" ");
        }
    }
    System.out.println();
}
```

if( i==n || j==1 || j==n )  
 System.out.print("\*");  
 else System.out.print(" ");

~~i==n~~

i=1 c=5 (1)  
 j=1 c=5 (1)  
 j=2 c=5 (1)  
 j=3 c=5 (1)  
 j=4 c=5 (1)  
 j=5 c=5 (1)  
 i=2, 3, 4



$$\textcircled{\times} + \textcircled{n-2} \Rightarrow \boxed{n-1}$$

$$\textcircled{\times} + n-2 \xrightarrow{\text{space}} \Rightarrow (n-2) + 1 = \textcircled{n-1}$$

## Pattern 9 - Square Ladder with top and bottom

Problem

Submissions

Leaderboard

Discussions

Take n as an integer input, then

print n tab separated stars in the first line,

then in the second line print a star, then n-2 tabs, then print a star.

then print n tab separated stars in the third line.

then in the fourth line print a star, then n-2 tabs, then print a star.

5

Sample Output 0

```

* * * * *
* * * * *
* * * * *
* * * * *
* * * * *
  
```

$i=1$   
 $i=2$   
 $i=3$   
 $i=4$   
 $i=5$

$$\begin{aligned}
 & \textcircled{!((i \% 2) != 0)} \quad \textcircled{i == 1} \quad \textcircled{i == n} \quad \rightarrow \text{down} \\
 & \textcircled{5} \rightarrow \textcircled{\times + 3} \quad \textcircled{4}
 \end{aligned}$$

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

for(int i=1;i<=n;i++){
    if(i%2!=0){
        for(int j=1;j<=n;j++){
            System.out.print("*\t");
        }
    }else {
        System.out.print("\t");
        for(int j=1;j<=n-2;j++){
            System.out.print("\t");
        }
        System.out.print("*");
    }

}

System.out.println();
}
```