

16

```

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

```

*
* *
* * *
  
```

```

* * *
* *
*
  
```

Rev triangle.

for ($0 \leq i < 3$)

for ($0 \leq j < \square$)

Print *

formula?

Reverse Δ .

$n=3$

$$3 - 0 = 3$$

$$3 - 1 = 2$$

$$3 - 2 = 1$$

$(n-i)$ Doubt 😊

17

```

  *
 * *
* * *
  
```

$(3 \times 3) \rightarrow \text{box}$
 $\rightarrow (n \times n)$

Print \rightarrow -
 \rightarrow *

cout << " - "; Space ✓

Start

* \rightarrow

for \rightarrow row

loop \rightarrow * \rightarrow column

loop \rightarrow - \rightarrow column

(* * *) \rightarrow 1 loop ✓

Bar Bar

```

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

1 loop ✓

1 loop
 Kab Kab 1
 Kab Kab 1
 1 loop

(- - *) \rightarrow 2 loop ✓

Bar Bar

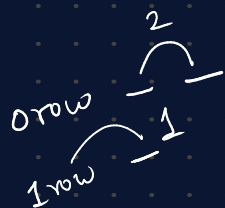
1 loop ✓

Breakdown



row \Rightarrow 3
col \Rightarrow 3

$i \rightarrow 3$



Dabben 😊

(Dry Run)



merge



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

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

Column

```
{
    cout << "-";
}
```

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

```
{
    cout << "*";
}
```

```
cout << endl;
```

```
}
```

```

* * *
- * *
- - *

```

```

-
- -
- - -

```

```

* * *
* *
*

```

$\rightarrow n-i$

triangle

```

1 1 1 ✓
- 2 2 ✓
- - 3 ✓

```

```

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

```

```

    for(int j=0; j<n-i; j++)
    {
        cout << " * ";
    }

```

```

    for(int k=0; k<=i; k++)
    {
        cout << " ";
    }
    cout << endl;
}

```

$\begin{matrix} & & 1 \\ - & - & 2 \\ 3 & 3 & 3 \end{matrix}$

$\begin{matrix} & \rightarrow 2 \\ 0 & - \\ 1 & \rightarrow 1 \\ 2 & \rightarrow 0 \text{ times} \end{matrix}$

$\begin{matrix} 0 & \{ & 1 \\ 1 & \{ & 2 \ 2 \\ 2 & \{ & 3 \ 3 \ 3 \end{matrix}$

$n-i$

Imagination.

$3 - 0 = \textcircled{3} \textcircled{2}$

$n - (i-1) \checkmark$
①

$\hookrightarrow \{ \leq i \}$

$\hookrightarrow (i+1)$

②

$\begin{matrix} 1 & 2 & 3 & 4 \\ - & 2 & 3 & 4 \\ - & - & 3 & 4 \\ - & - & - & 4 \end{matrix}$

$i + (i+1) \rightarrow ?$
?

$\begin{matrix} 0 \rightarrow \textcircled{2} \\ 1 \rightarrow - \\ 2 \rightarrow - \\ 3 \rightarrow - \end{matrix}$

$\begin{matrix} 1 & 2 & 3 & 4 \\ \textcircled{2} & \textcircled{3} & \textcircled{4} \\ 3 & 4 \\ 4 \end{matrix}$

$\begin{matrix} i/j \\ 00 & 01 & 02 & 03 \\ 10 & 11 & 12 \\ 20 & 21 \\ 30 \end{matrix}$

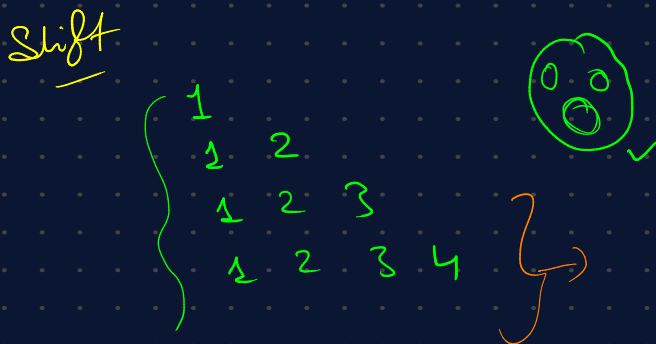
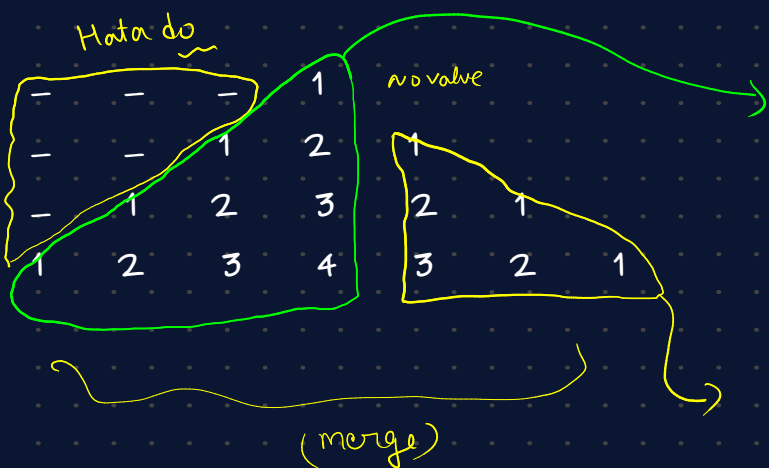
$(i \text{ times})$

$(i+j+1) \checkmark$

merge

-	-	-	1
-	-	2	3
-	4	5	6
7	8	9	10

Var = 1 ✓
 MASTI
 (00)

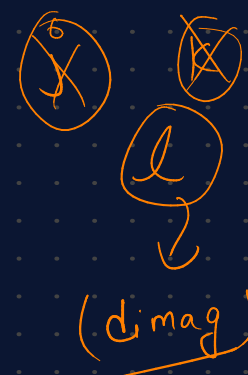


H.w
 (00)

(Loop) ?

↳ (4 loop) bna skte hai ✓

family



Shift
 ↓



```
for(int i=0 ; i<3 ; i++)
{
  for(int j=1 ; j<=i ; j++)
  {
    cout << " * ";
  }
  cout << endl;
}
```

Shift ↓

Print

-	-	-	1			
-	-	1	2	1		
-	1	2	3	2	1	
1	2	3	4	3	2	1

1	2	3	4	5	5	4	3	2	1
1	2	3	4	*	*	4	3	2	1
1	2	3	*	*	*	*	3	2	1
1	2	*	*	*	*	*	*	2	1
1	*	*	*	*	*	*	*	*	1

Homework

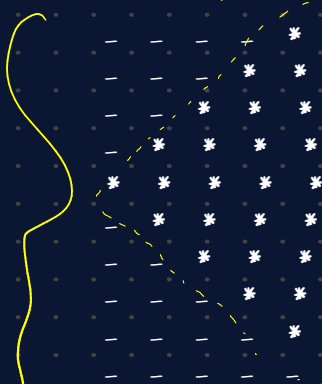
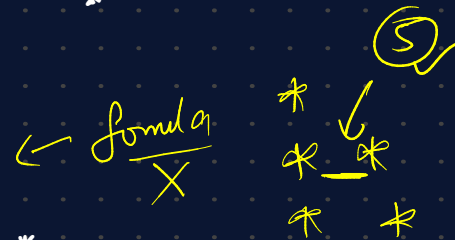


Formula \rightarrow reverse - 1
 $i = 0 \rightarrow 4$

Formula

Space hotane
ke baad

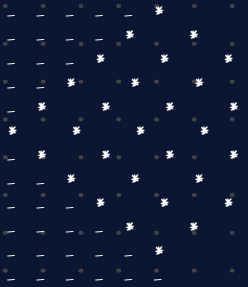
space \rightarrow 0
 cout << " * - - - - ";





} Exam
 ---X--- → space

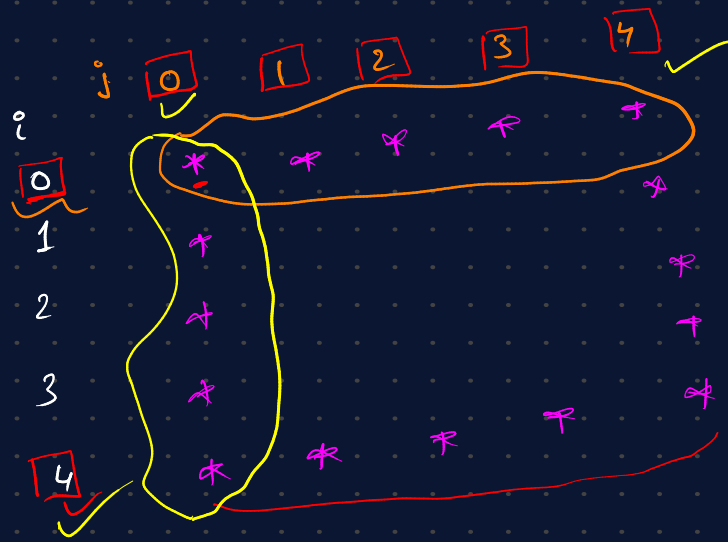
→ Breakdown
 → merge



$i = 0$
 $j = 4$
 $i \rightarrow 5 \text{ times}$
 $j \rightarrow 5 \text{ times}$

if ($(i == 0 \parallel i == n - 1 \parallel j == 0 \parallel j == n - 1)$)

{ cout << " * ";
 } else { cout << " "; }



H.w

if else ✓
 ✓ formula ✓ → (DSA)
 Another ✓

30 +

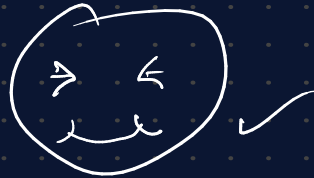


(DSA)
↓ ka

(Baccha)

(Core)

DSA



Questions

Pattern

Pattern → No doubt
(Ask me)

Pattern →

week → 1 Bar

↳ 1 month

Final destination

Yaa! ✓