**Basic Structure for Pattern Printing**

for (let i = 1; i <= totalRows; i++) // Outer loop controls rows

{

for (let j = 1; j <= something\_based\_on\_i; j++) // Inner loop controls columns

{

Console.Write("something");

}

Console.WriteLine(); // Move to next line

}

**1. Right-Angled Triangle of Stars**

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\* \* \* \*

**Logic:**

* Outer loop (i) for rows: 1 to n
* Inner loop (j) from 1 to i

for (let i = 1; i <= n; i++)

{

for (let j = 1; j <= i; j++)

Console.Write("\* ");

Console.WriteLine();

}

**Try**

Number Triangle

1

2 2

3 3 3

4 4 4 4

Number Triangle

1

1 2

1 2 3

1 2 3 4

Inverted Right-Angled Triangle

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\* \* \*

\* \*

\*

**2. Pyramid Pattern**

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**Logic:**

* Outer loop for rows i = 1 to n
* First inner loop prints spaces: n - i
* Second inner loop prints stars: i times

for (let i = 1; i <= n; i++)

{

for (let j = 1; j <= n - i; j++)

Console.Write(" ");

for (let k = 1; k <= i; k++)

Console.Write("\* ");

Console.WriteLine();

}

**Try**

Diamond Pattern

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**3. Hollow Rectangle**

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**Logic:**

* Print stars in the first and last rows.
* For middle rows: print star at the first and last column; rest are spaces.

let rows = 4, cols = 5;

for (let i = 1; i <= rows; i++)

{

for (let j = 1; j <= cols; j++)

{

if (i == 1 || i == rows || j == 1 || j == cols)

Console.Write("\* ");

else

Console.Write(" ");

}

Console.WriteLine();

}

**4. Hollow Right-Angled Triangle**

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**Logic:**

* Print star in first and last row
* For others: print star only at first or last column

**5. Alphabet Right-Angled Triangle**

A

B B

C C C

D D D D

<script>

let n = 4;

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

let ch = String.fromCharCode(65 + i); // 65 = 'A'

let line = "";

for (let j = 0; j <= i; j++) {

line += ch + " ";

}

console.log(line);

}

</script>

**6. Alphabet Increasing Pattern**

A

A B

A B C

A B C D

let n1 = 4;

for (let i = 0; i < n1; i++) {

let line = "";

for (let j = 0; j <= i; j++) {

line += String.fromCharCode(65 + j) + " "; // 65 = ASCII for 'A'

}

console.log(line);

}