**1)**

**Input n from user**

**Input n, i, &, j**

Yes

Yes

No

No

Yes

**i<=n**

**j<i**

**Increment loop**

**j++**

**Increment loop**

**i++**

**Print \***

The Flowchart which is shown here it yields below pattern:

**\***

**\* \***

**\* \* \***

**\* \* \* \***

**\* \* \* \* \*… n number of times**

**Algorithm**

1. Declare variable n, i, & j.

2. Read the value of variable from the user.

3. Loop i<=n:

1. Loop j<i:

2. Print \*

3. Increment i.

4. End loop.

4. End loop

**2)**

Yes

**Input n from user**

**Input n, I, &, j**

Yes

Yes

No

No

**i<=n**

**j<i**

**Increment loop**

**j++**

**Increment loop**

**i++**

**Print i**

The Flowchart which is shown here it yields below pattern:

**1**

**2 2**

**3 3 3**

**4 4 4 4**

**5 5 5 5 5... n number of times**

**Algorithm**

1. Declare variable n, i, & j.

2. Read the value of variable from the user.

3. Loop i<=n:

1. Loop j<i:

2. Print i

3. Increment i.

4. End loop.

4. End loop

**3)**

**Input n from user**

**Input n, I, &, j**

Yes

Yes

No

No

Yes

**i<=n**

**j<i**

**Increment loop**

**j++**

**Increment loop**

**i++**

**Print j**

The Flowchart which is shown here it yields below pattern:

**1**

**1 2**

**1 2 3**

**1 2 3 4**

**1 2 3 4 5… n number of times**

**Algorithm**

1. Declare variable n, i, & j.

2. Read the value of variable from the user.

3. Loop i<=n:

1. Loop j<i:

2. Print \*

3. Increment j.

4. End loop.

4. End loop

**4)**

Yes

No

No

**x<=n?**

**y<=n?**

**x++**

**num++, y++**

**Print \n**

**Print num**

**Initialize x=1 and y=1**

**Declare variable n, x, y, num=1**

**Input number of rows**

The Flowchart which is shown here it yields Floyds Triangle:

For example if n = 15 then

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15

**Algorithm**

**1.** Start

**2.** Declare Variable n, x, y, num=1

**3.** Ask the user to enter number of rows.

**4.** Initialize x=1, & y=1

**5.** Loop: x<=n

1. Loop: y<=n

1.if true ,then Print num.

2. Increment num and y variable.

3. Go back to y loop.

4. If false print on a new line.

5. Increment x variable.

6. End loop y.

**6.** End loop x.

**5)**

The Flowchart which is shown here it yields below pattern:

**Increment loop**

**j++**

No

No

Yes

**j<=i**

**If(i%2==0)**

**Increment loop**

**i++**

Yes

**i<=n**

**Print #**

**Print \***

**Input n from user**

**Declare n, i, &, j**

**\***

**# #**

**\* \* \***

**# # # #**

**\* \* \* \* \* ... n number of times**

**Algorithm**

**1.** Declare variable n, i, & j.

**2.** Read the value of variable from the user.

**3.** Loop i<=n:

1. Loop j<i:

2. If (i%2==0):

1) If true, then print \* pattern

2) If false, then print # pattern

3. Increment j.

4. Go back to loop.

**4.** Increment i.

**5.** End outer loop

**6)**

The Flowchart which is shown here it yields below pattern:

**k=k+2**

**Print k**

**Declare n, i, j &, k=1**

**Input n from user**

**i<=n**

Yes

Yes

No

No

Yes

**j<i**

**Increment loop**

**j++**

**Increment loop**

**i++**

**1**

**1 3**

**1 3 5**

**1 3 5 7**

**1 3 5 7 9**

**Algorithm**

**1.** Declare variable n, i, j, & k=1

**2.** Read the value of variable from the user.

**3.** Loop i<=n:

1. Loop j<i:

2. Print k

3. k = k + 2

4. Increment j

5. Go back to loop.

**4.** Increment i.

**5**. End loop.