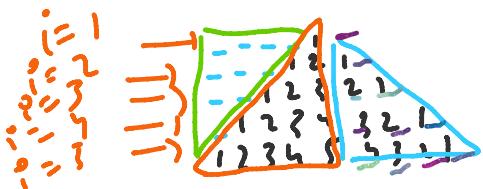
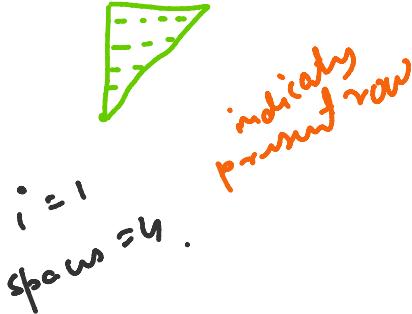


Conditional Statements

29 May 2023 18:52



- [1. spaces :
 2. i to down no. (print) ↗ increasing
 3. row no. - 1 to 1.
 in decreasing order.



input rows : 5 rows ← 5 ;

i ← 1
while i <= rows do .

// Spacing print.

spaces ← (rows - i)

while spaces > 0 do .

o/p " "
 spaces -- ; done .

// 1 to row no.

num ← 1 -

while num <= i do .

o/p num

num ← num + 1 done .

// row - 1 to 1 in decreasing order

// row - 1 to 1 in decreasing order

dec ← i - 1

while dec ≥ 1 do .

x ↓ o/p dec .

dec ← dec - 1 done .

—

→ o/p "\n"

→ i ← i + 1

done .

first bit : → sign .
first bit set : → inv number .

4 2 4
0 = - = + 7

while loop .
loop iterator

- 1) $i \leftarrow 1$;
 while $i \leq n$:
print
 2) $i \leftarrow i + 1$
 3) done.

1. initialization.
2. Task.
3. update.

while (condition) {

// task ·

dition.) q

[in b/w or at the end we do update of iterator]

	1	2	3	4	5
0	*	*	*	*	*
1	*	*	*	*	*
2	*	*	*	*	*
3	*	*	*	*	*
4	*	*	*	*	*
5	*	*	*	*	*
6	*	*	*	*	*
7	*	*	*	*	*
8	*	*	*	*	*
9	*	*	*	*	*

$\text{rows} = 7$
 $|\text{rows}| = 21$
 $\text{rows} + t \in \mathbb{N}$

$$r = 1^{\circ}$$

$=^2$ \neq

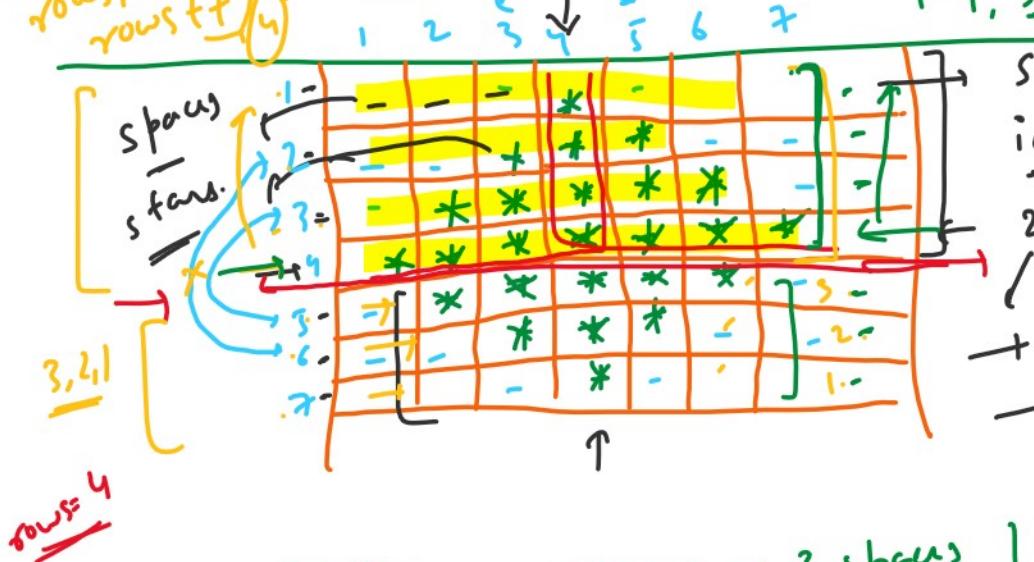
25

1

while
if, else if, else
new ← \$.

1. print "*" ✓
2. print space..

$$\boxed{i=1 \text{ row} \\ \text{row} - i + 1 \text{ row}}$$



space.
identify tasks

2 tasks

ω

\rightarrow stands \rightarrow calc. for.

relation
between
variables = $\left[\begin{matrix} \text{row} & \text{col. row} \\ \downarrow & \\ \text{unit} \end{matrix} \right]$

→ 1st row → 3 spaces
 2nd row → 2 spaces
 3rd row → 1 space
 4th row → 0 spaces

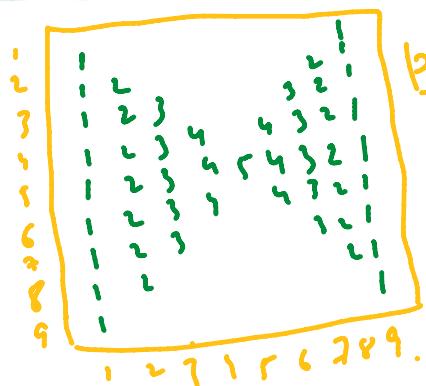
curr. row num. of stars stars
 - [$i + \text{curr_row} * -1$]

Cur. no. of stars
 $\frac{6 \text{ no. of stars}}{6 \text{ no. of stars}} = [2 \times \text{current row} - 1]$
 $\frac{3^{\text{rd}}}{3^{\text{rd}}} \rightarrow 5 \text{ stars}$
 $\frac{4^{\text{th}}}{4^{\text{th}}} \rightarrow 7 \text{ stars}$

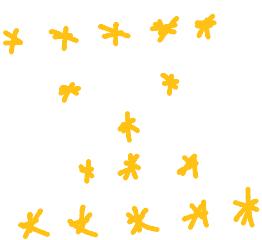
it++

below part.
 $\frac{3^{\text{rd}}}{3^{\text{rd}}} \text{ row}$ with same logic as
 $\frac{4^{\text{th}}}{4^{\text{th}}} \text{ row}$
 $\frac{5^{\text{th}}}{5^{\text{th}}} \text{ row}$
 $\frac{6^{\text{th}}}{6^{\text{th}}} \text{ row}$

①



blown
2



Hollow square
from above

Check if a number is prime or not.

i/p num.

$(1, n) \rightarrow$ only 2 prime factors.

$2 \text{ to } n-1$
 agar koi thi integer
 "se divide karne vale hai"
 num iska matlebs \rightarrow wo prime nahin hai.
 if it is not dividing, \rightarrow wo prime hai.

① i/p num.

$2 \text{ to } \sqrt{n}-1$ tak divide karne wali num ko
 if divisible \rightarrow o/p "Not prime"
 else o/p "prime"