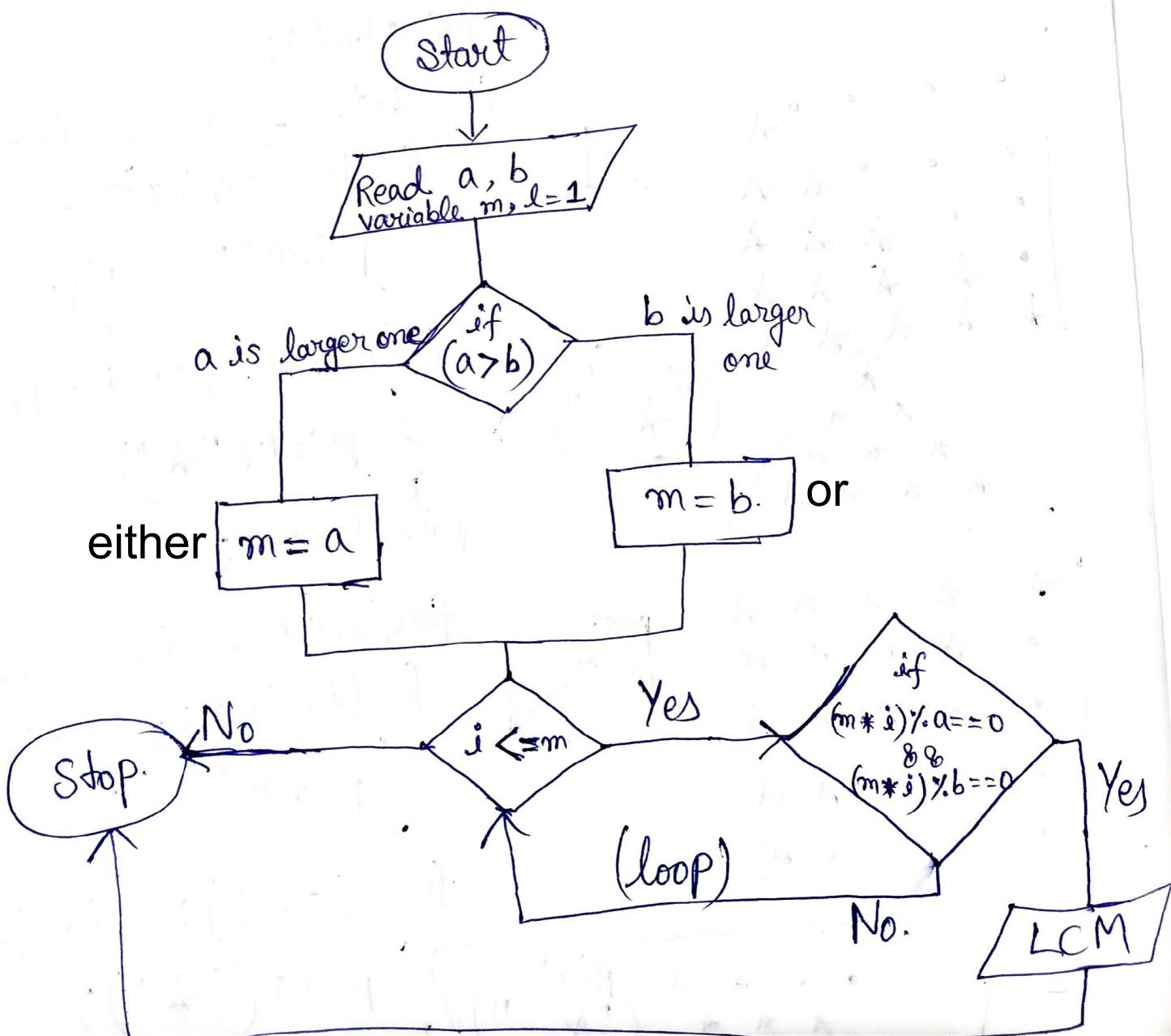


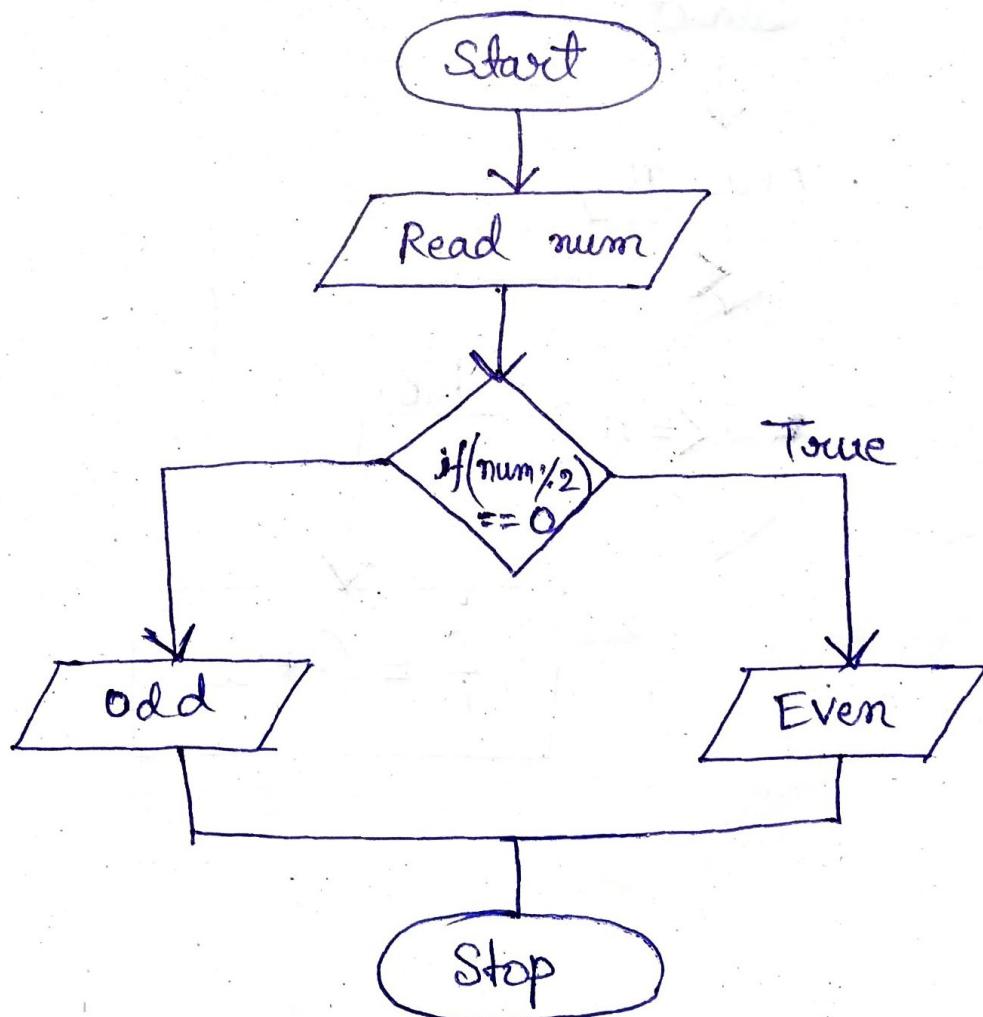
- 1) Start.
 - 2) Take inputs (a & b)
 - 3) check max (a or b)
 - 4) loop (1 to \max) $i = 1 \text{ to } \max$
 - 5) Inside loop if ($\max \% a == 0$ & $\max \% b == 0$)
- ~~max * i % a == 0~~
Yes = max is LCM → break; → outside loop print LCM
No = check with multiple of max.
 $(\max * i)$



① Check given number EVEN or ODD.

Algorithm

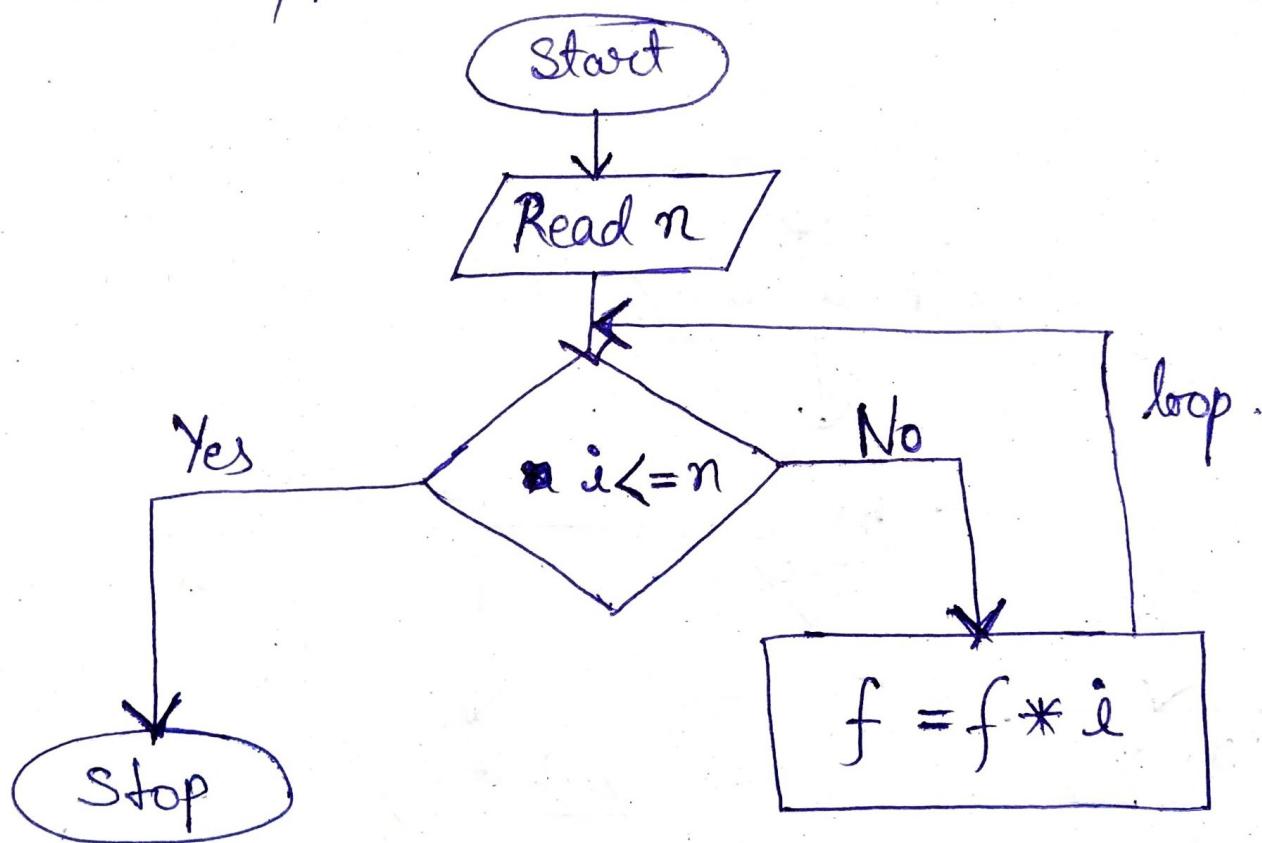
- 1) Start
- 2) Create an object, Read input given by user (num)
- 3) Check if ($\text{num} \% 2 == 0$)
- 4) If Yes give o/p = Even
- 5) If No give o/p = Odd.
- 6) Stop



② Factorial of a given number

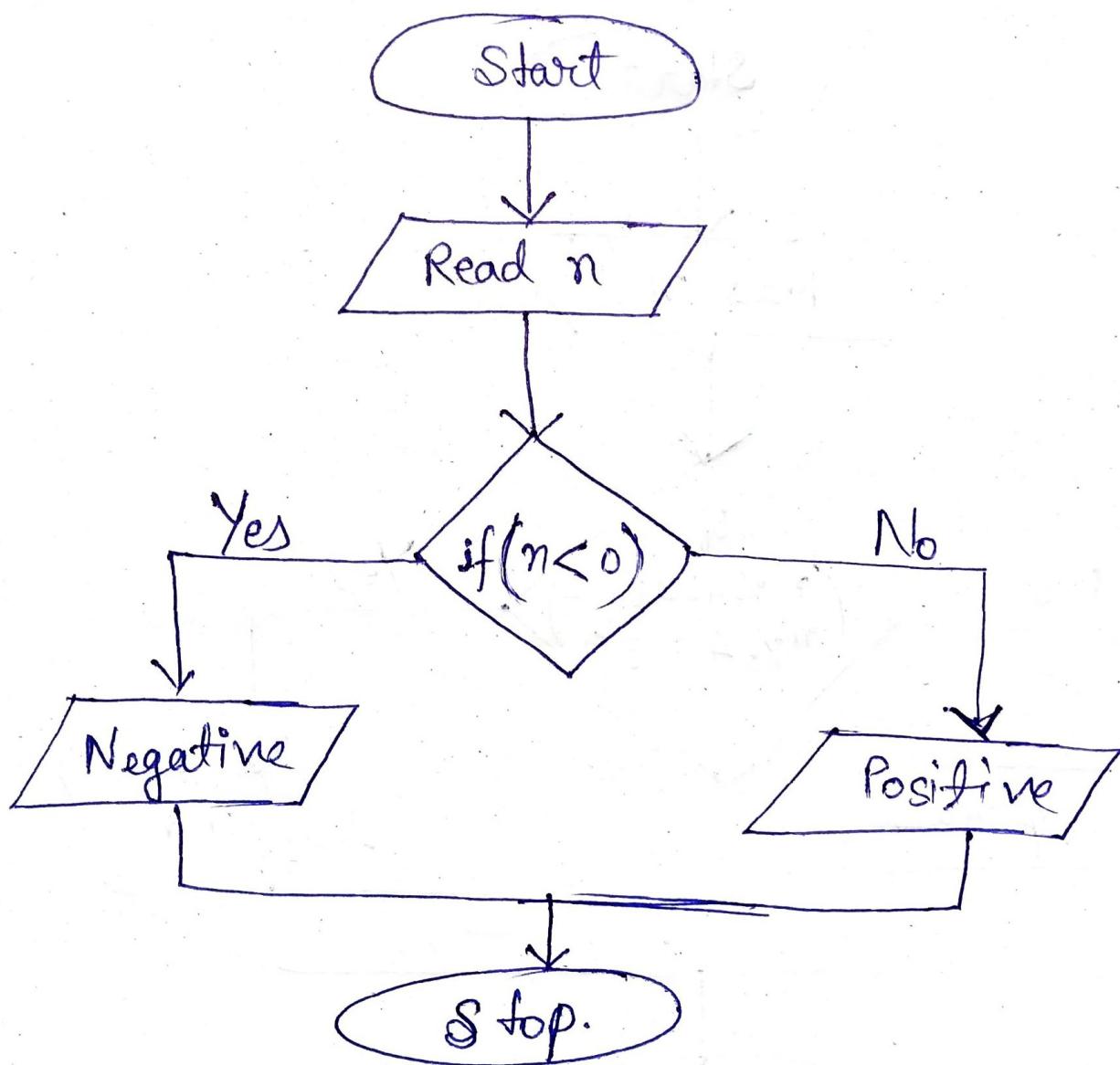
Algo:-

- 1) Start
- 2) Take input from user , initialize it (n)
- 3) Take a variable to store calculated answer ($f = 1$)
- 4) Take loop from 1 to n (incremented)
- 5) Inside loop $\rightarrow f = f * i$
- 6) Print o/p.



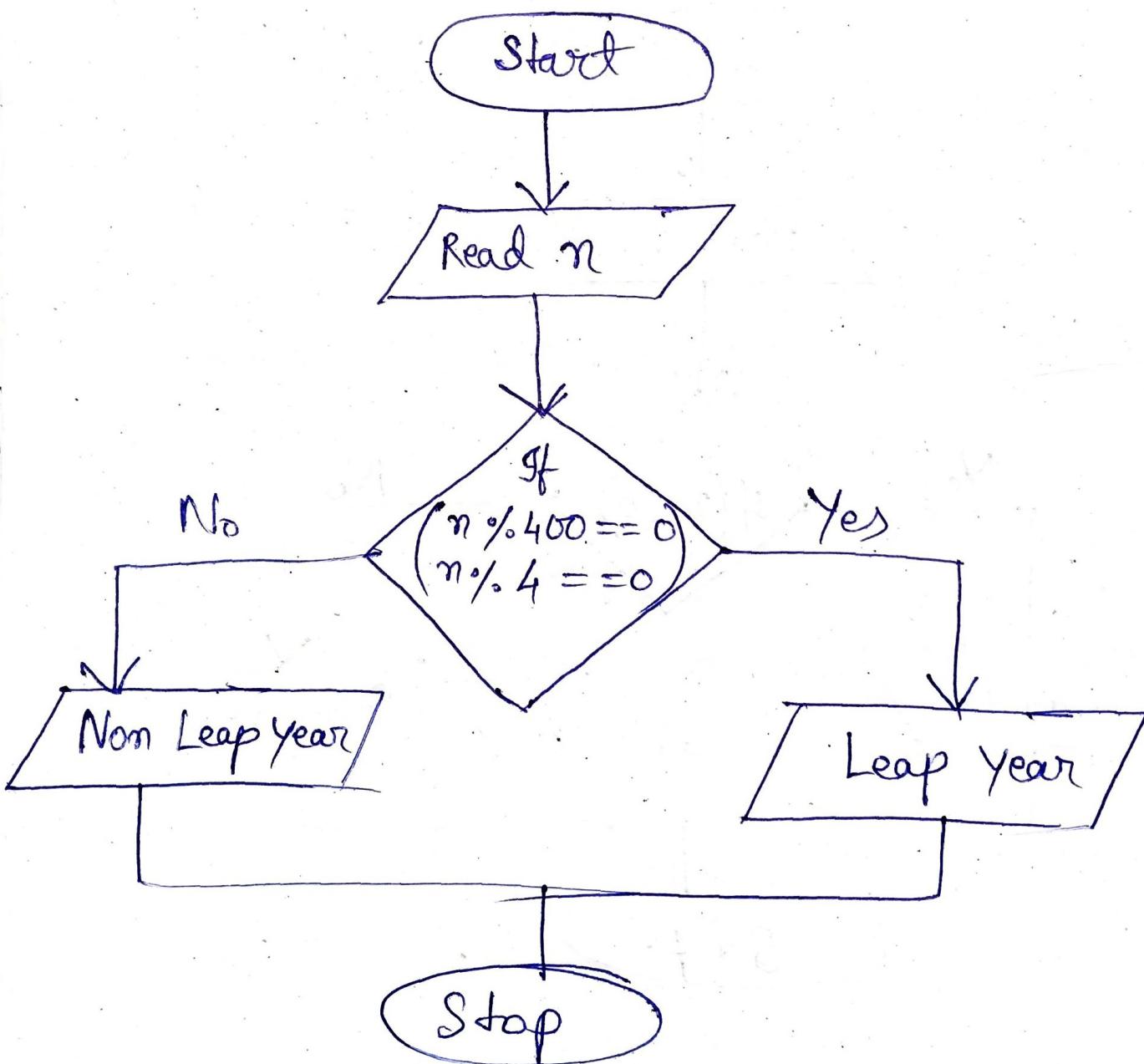
5. Check number is positive or negative.

- 1) Start
- 2) Take input from user, initialize it (n)
- 3) Check if ($n < 0$)
- 4) If Yes , o/p \rightarrow Negative
- 5) If No , o/p \rightarrow Positive.



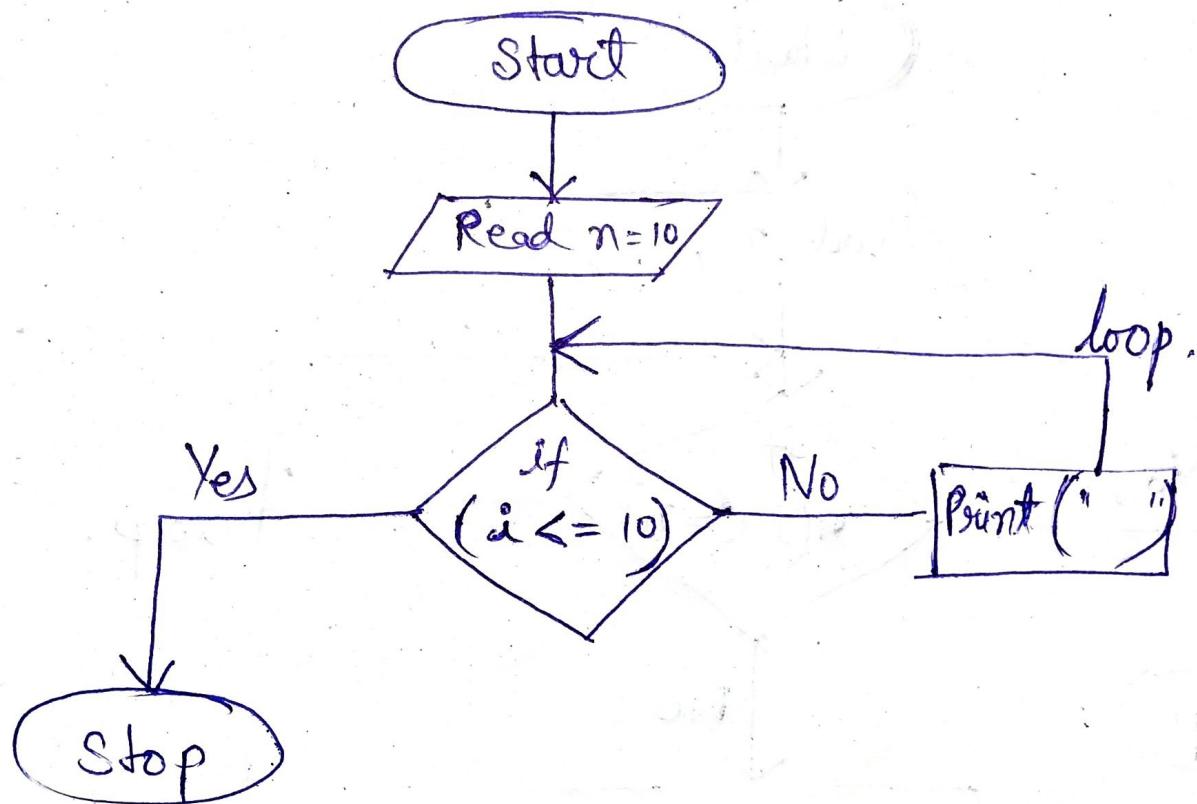
6) * Leap Year or Not.

- 1) Start
- 2) Read input (n)
- 3) Check if $(n \% 400 == 0 \text{ || } n \% 4 == 0)$
- 4) If Yes \rightarrow Leap year
- 5) No \rightarrow Non Leap year



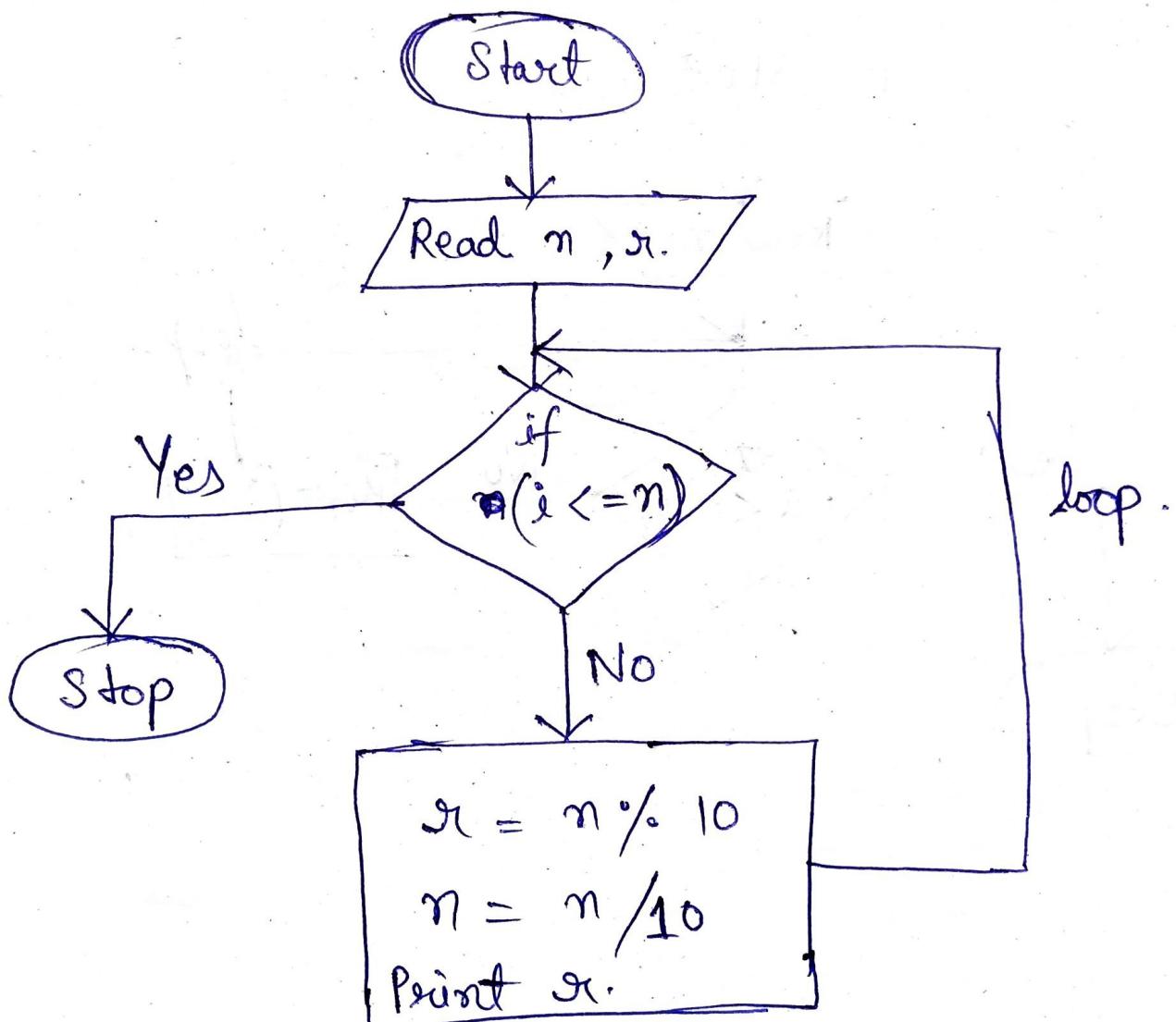
Q7) Print 1 to 10 using loop

- 1) Start
- 2) Read input (~~n~~) $n = 10$
- 3) for loop 1 to 10
- 4) Inside loop print ($i + " "$)



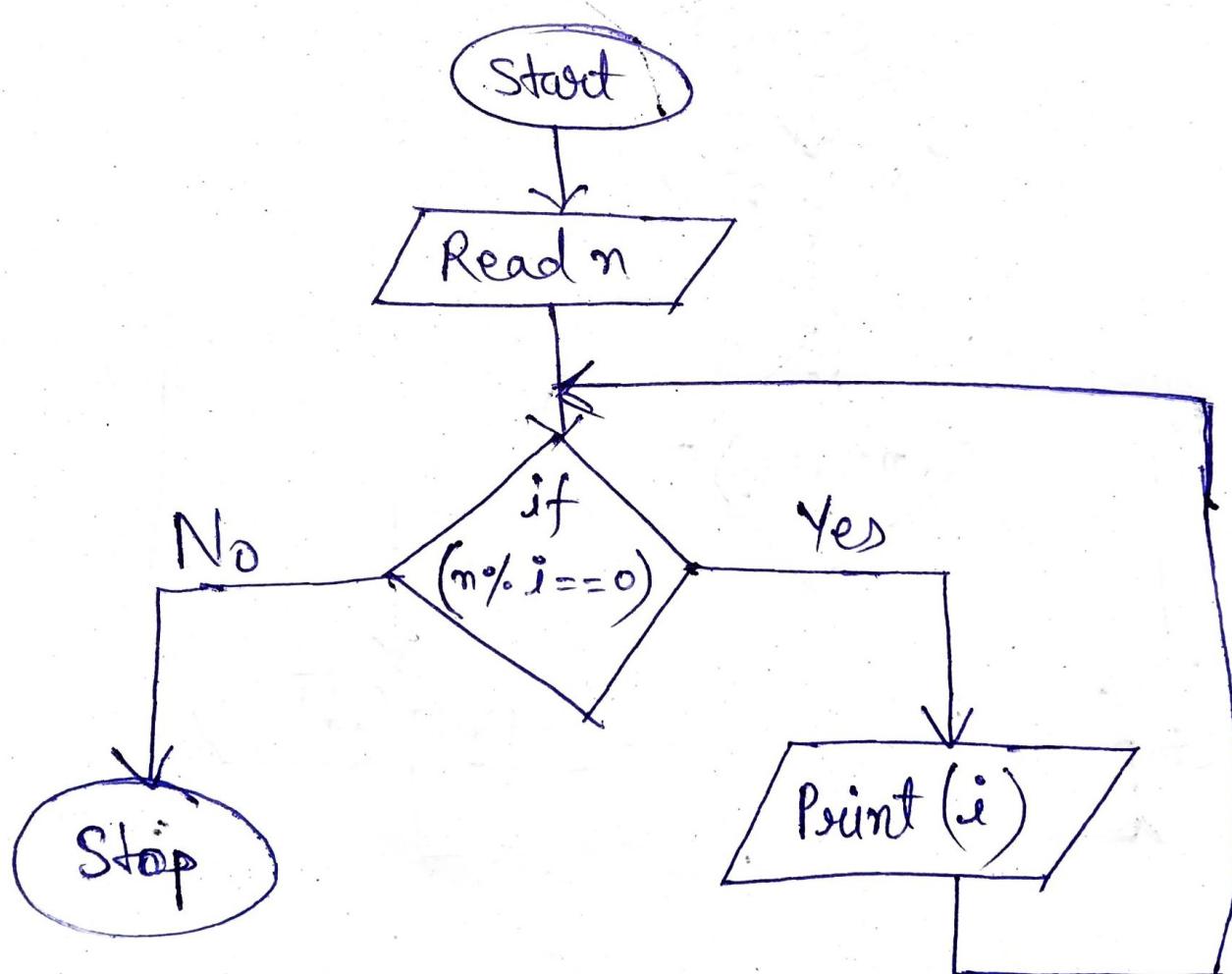
⑧ Print digits of a given number.

- 1) Start
- 2) Read input (n), Take variable \rightarrow remainder (r)
- 3) Take loop i to n
- 4) Inside loop $\rightarrow r = n \% 10 ; n = n / 10$
- 5) Print r



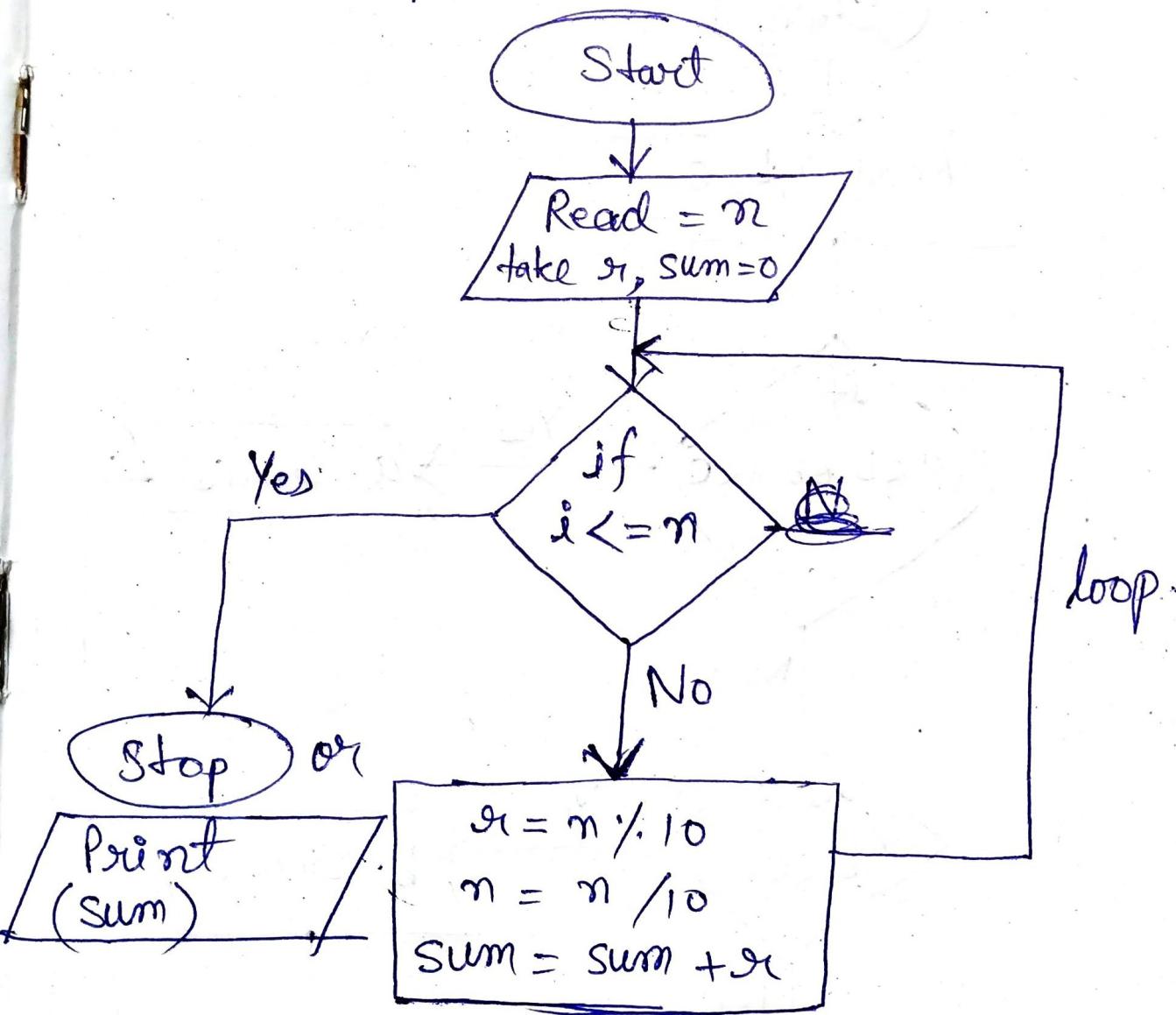
⑨ Print all factors of a given number.

- 1) Start
- 2) Input = n
- 3) Loop (1 to n)
- 4) Inside loop check if $(n \% i == 0)$
- 5) Yes \rightarrow print ($i + " "$)
No \rightarrow ~~print~~ outside loop



⑩ Sum of Digits of a given number

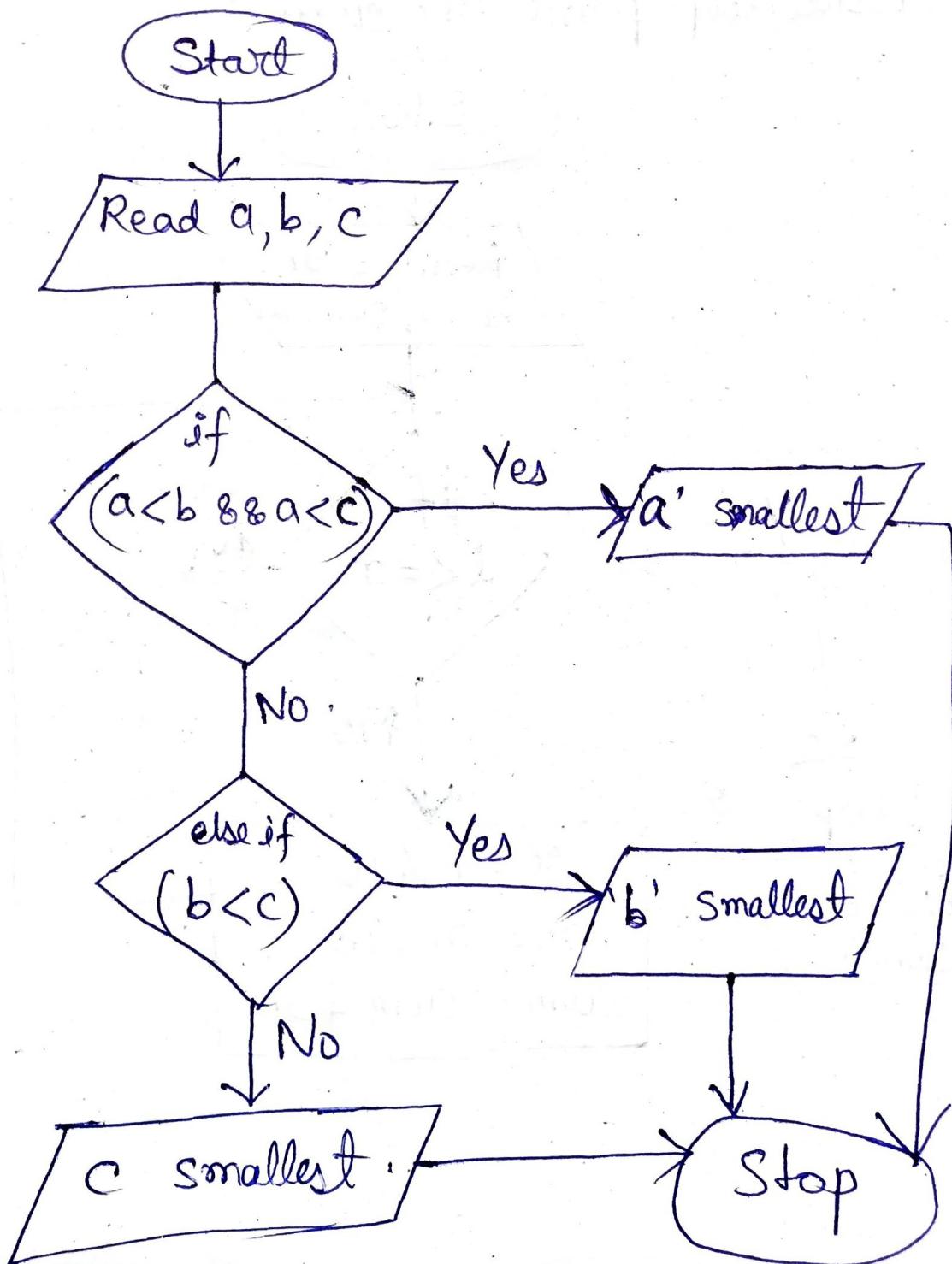
- 1) Start
- 2) Input = n , variable r , sum = 0
- 3) loop (1 to n)
- 4) Inside loop \rightarrow ~~if~~ $r = n \% 10$.
 $n = n / 10$
sum = sum + r
- 5) Outside loop print the 'sum'



11

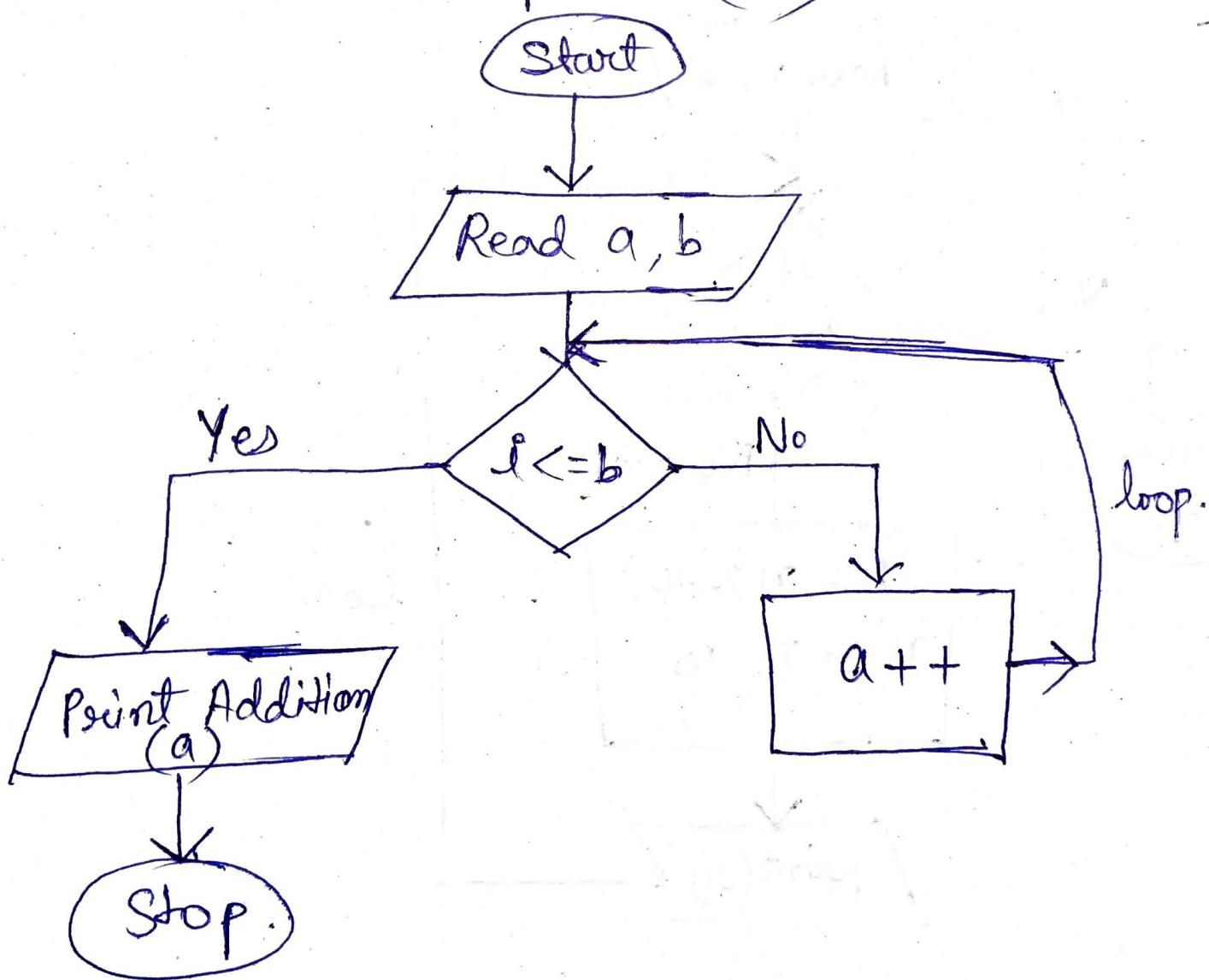
Smallest of 3 numbers

- 1) Start
- 2) Take 3 numbers as input from user (a, b, c) and initialize it.
- 3) Check if $(a < b \& a < c)$, Yes \rightarrow 'a' smallest
- 4) else if $(b < c)$, Yes \rightarrow b smallest
- 5) else \rightarrow c smallest.



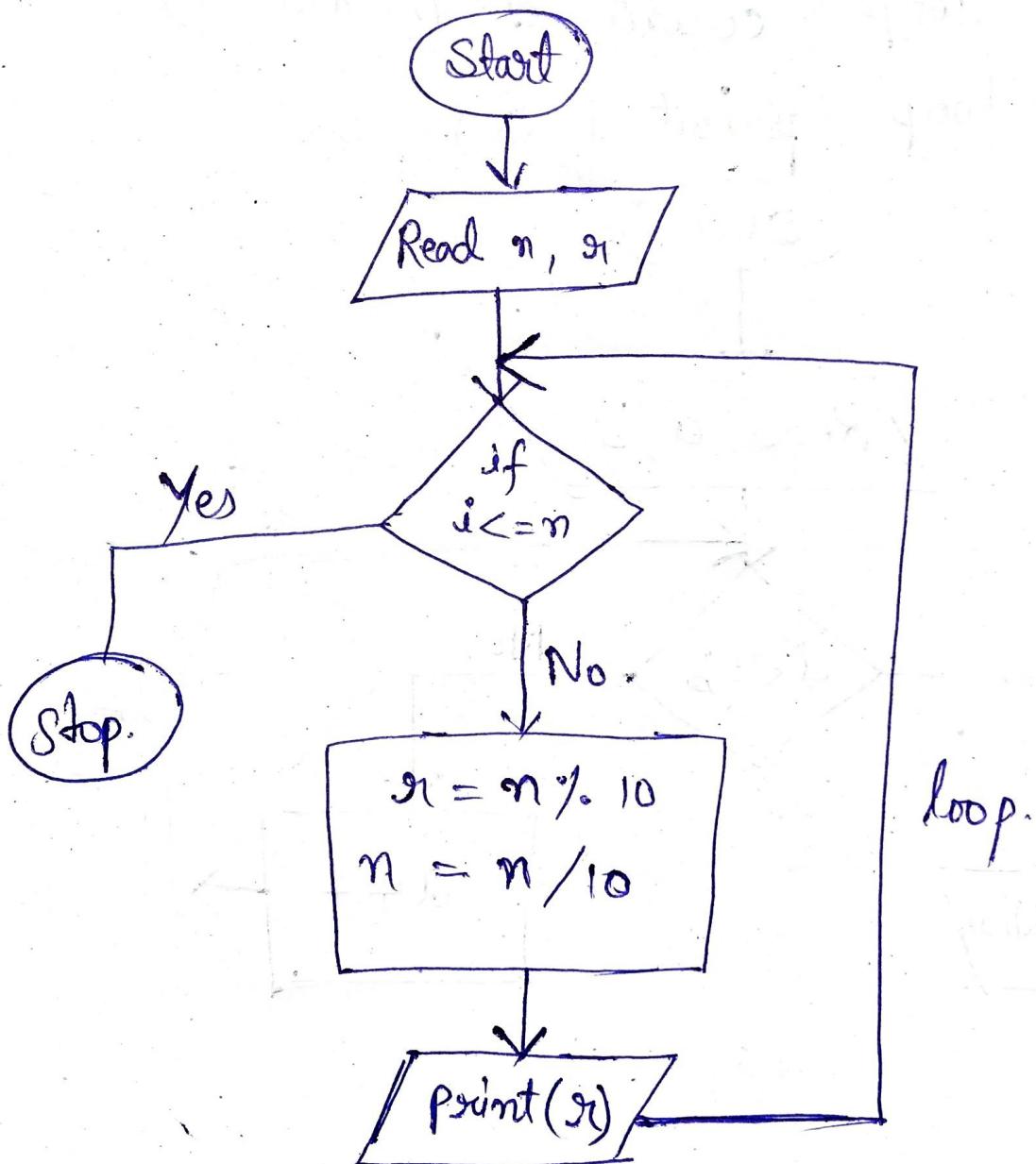
⑫ Add two numbers without operator .

- 1) Start
- 2) Take two numbers from user , initialize it ($a & b$)
- 3) loop from (1 to b)
- 4) inside loop (count a increment)
- 5) outside loop print (a)



(13) Reverse of a given number:-

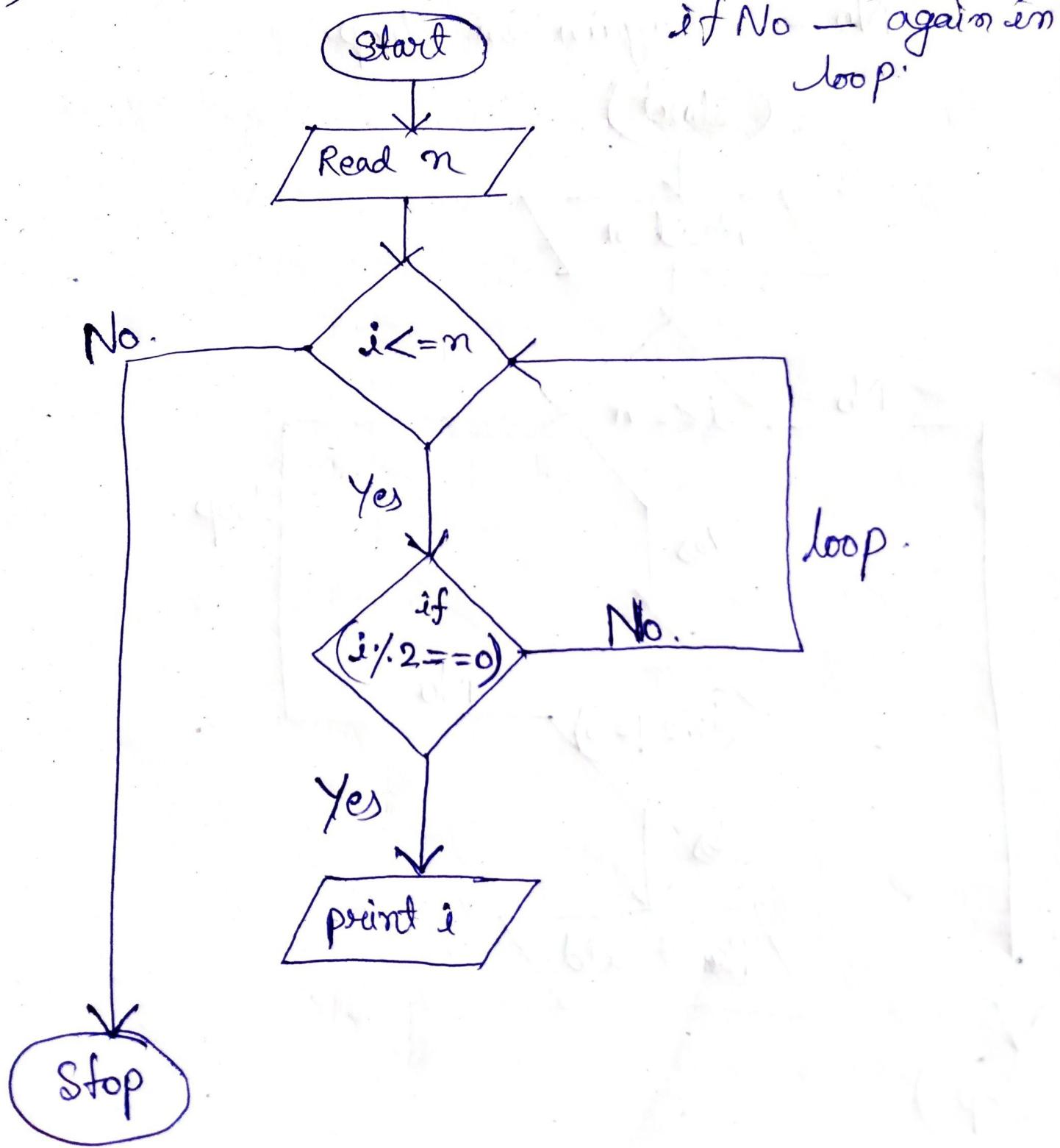
- 1) Start
- 2) Input from user = n , variable = r
- 3) for loop (1 to n)
- 4) inside loop $r = n \% 10$, $n = n / 10$, print(r)



19 Even series

- 1) Start
- 2) Take inputs as range of the series - (n)
- 3) for loop (1 to n)
- 4) inside loop condition if ($i \% 2 == 0$) if Yes
- 5) then count and print ~~$i =$~~ as ($i + " "$)

if No — again in
loop.

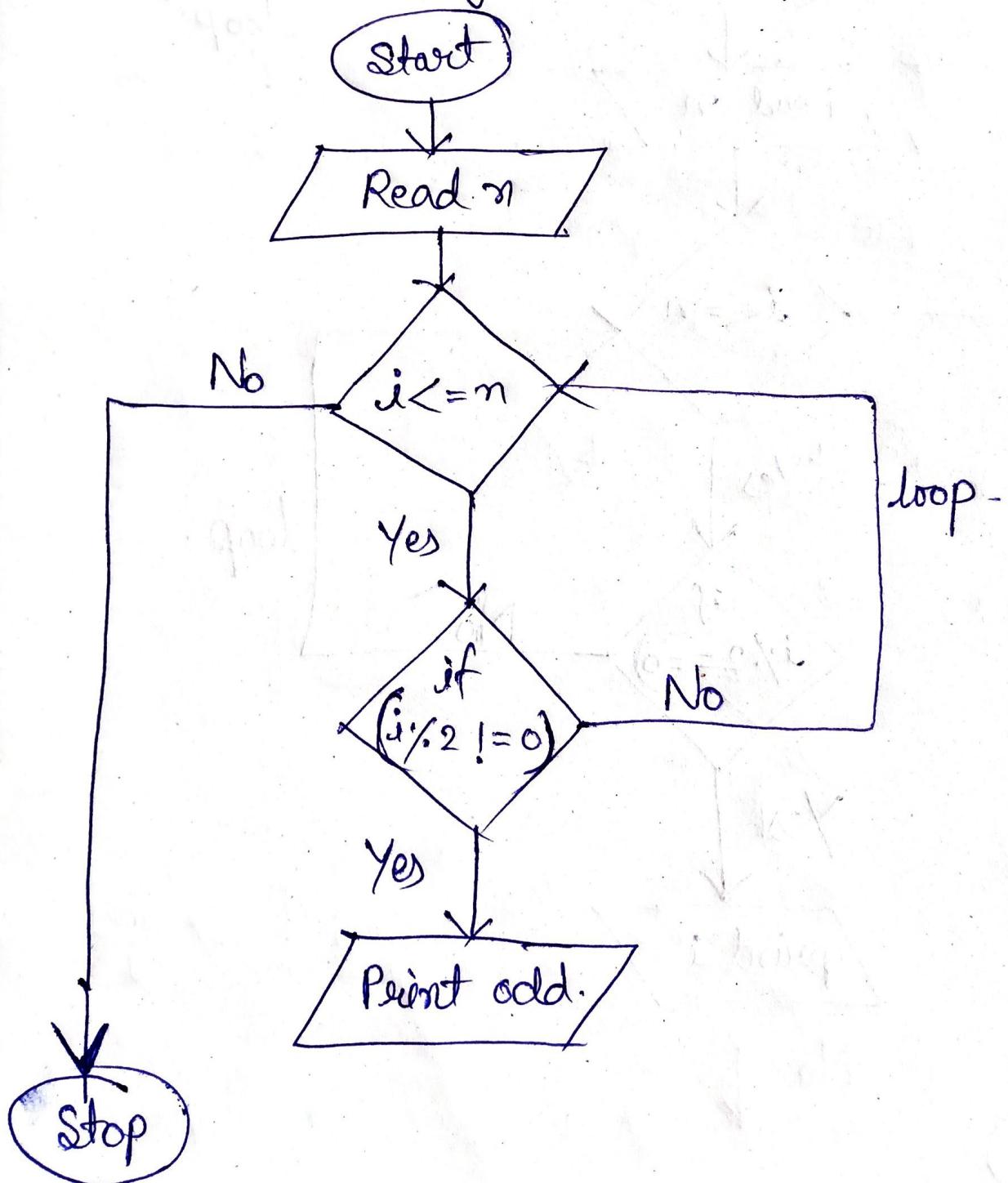


20 Odd series

- 1) Start
- 2) Take input as range of series = n
- 3) for loop (1 to n)
- 4) inside loop if (~~i~~ $i \% 2 != 0$)

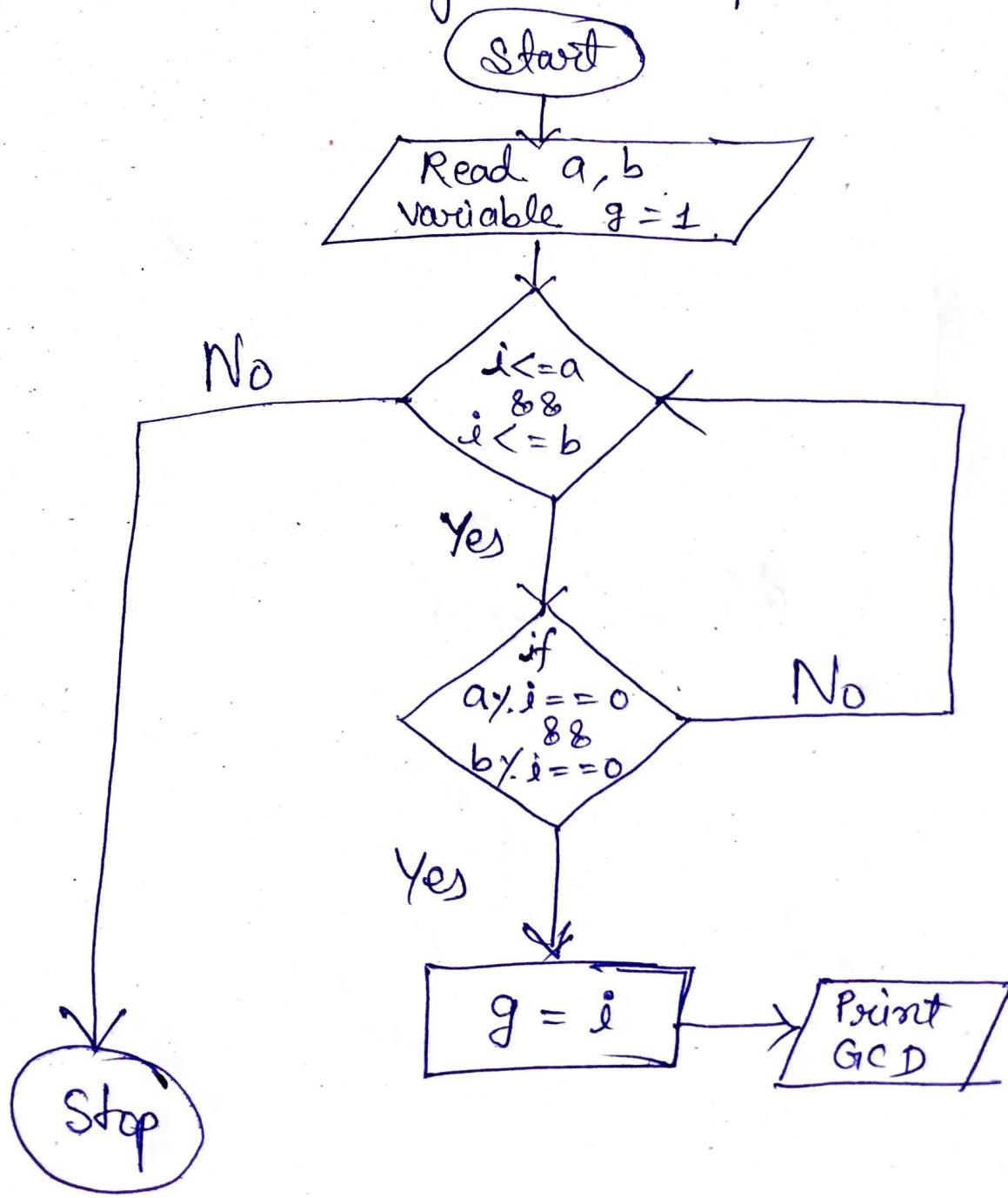
Yes \rightarrow Print odd

No \rightarrow again in loop.



(15) GCD of two given numbers

- 1) Start
- 2) Take inputs a & b , variable $g = 1$;
- 3) Loop $\lrcorner (1 \text{ to } a \text{ & } b)$
i.e. ($i = 1$; $i \leq a \text{ & } i \leq b$; $i++$)
- 4) inside loop if ($a \% i == 0 \text{ & } b \% i == 0$)
 - Yes $\rightarrow g = i \rightarrow$ Print GCD = g .
 - NO \rightarrow again in loop.



17) Palindrome Check

- 1) Start
- 2) Take input = n , variable = $d=0, x=n, r=0$ checking
- 3) Take while loop condition ($n > 0$)
- 4) Inside loop $d = n \% 10; n = n / 10; r = r * 10 + d;$
- 5) Outside loop if ($x == r$)
 - Yes — Palindrome
 - No — Non Palindrome.

