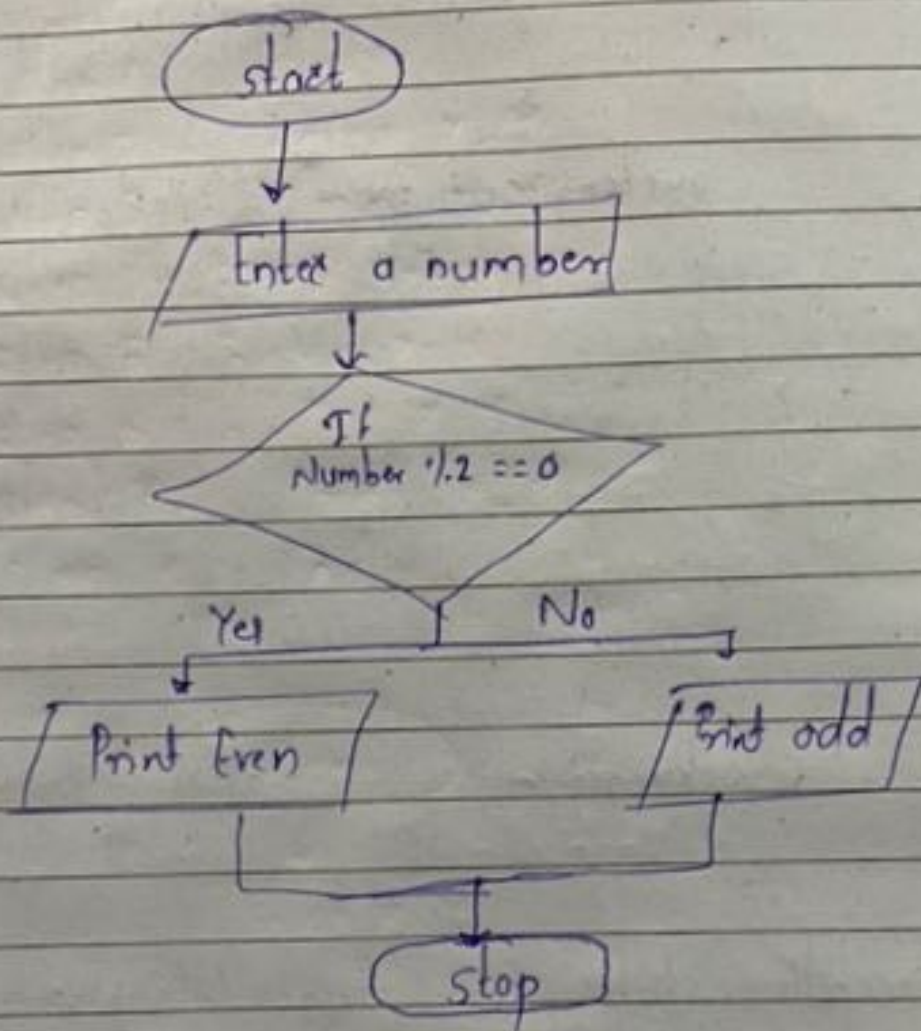


Assignment - 1

Q. No. is even or odd.



Step 1 :- Start program

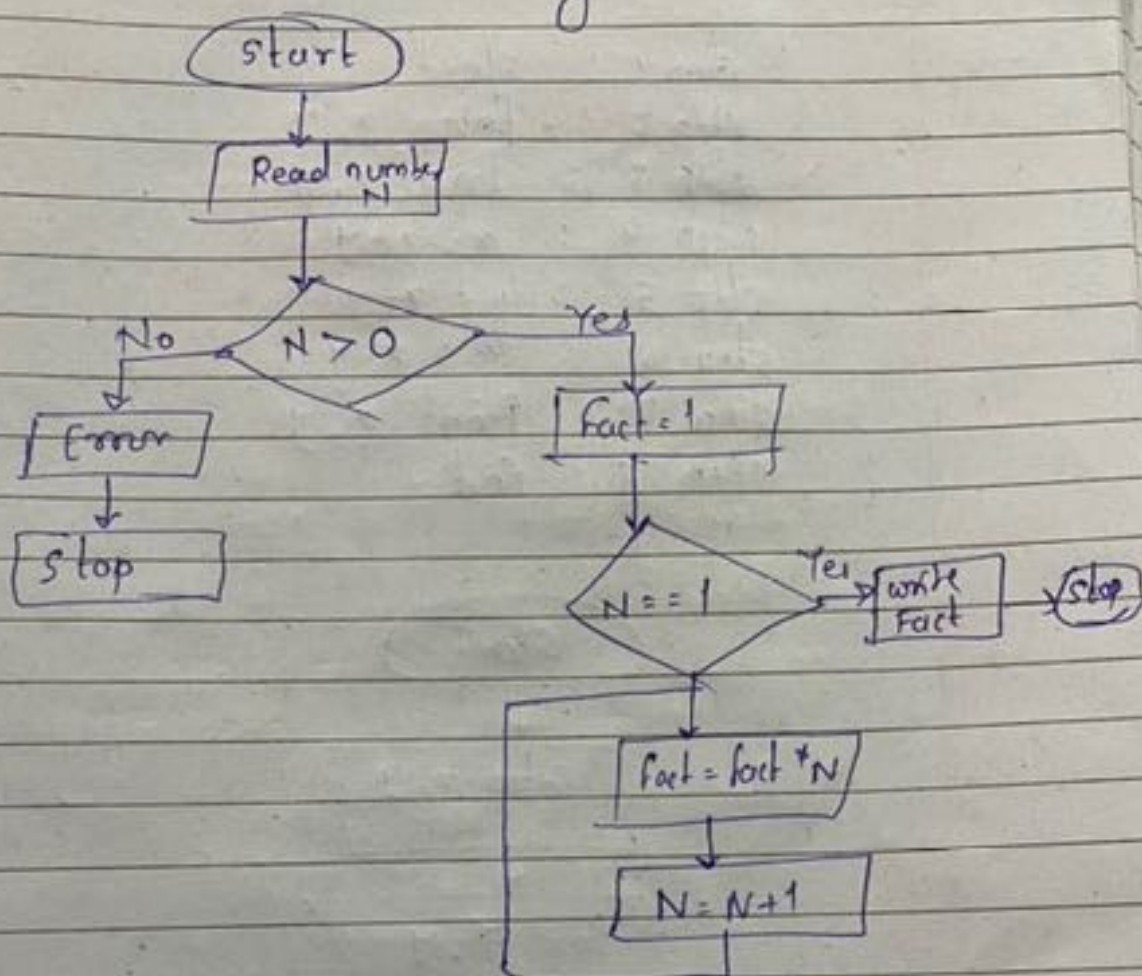
Step 2 :- Input the given number

Step 3 :- Condⁿ for no. is even or odd

Step 4 :- Gives Number is ~~is~~ Even or odd

Step 5 :- ~~Stop~~ End the program.

factorial of number using recursion



step 1: start
step 2: read no. n
step 3: Call factorial(n)
step 4: print factorial f
step 5: stop

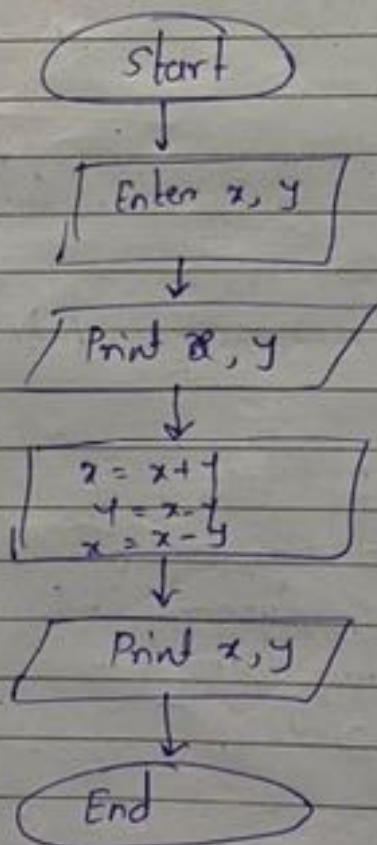
factorial(n)

step 1: If $n == 1$ then return 1
step 2: Else
 $f = n * \text{factorial}(n-1)$
step 3: Return f

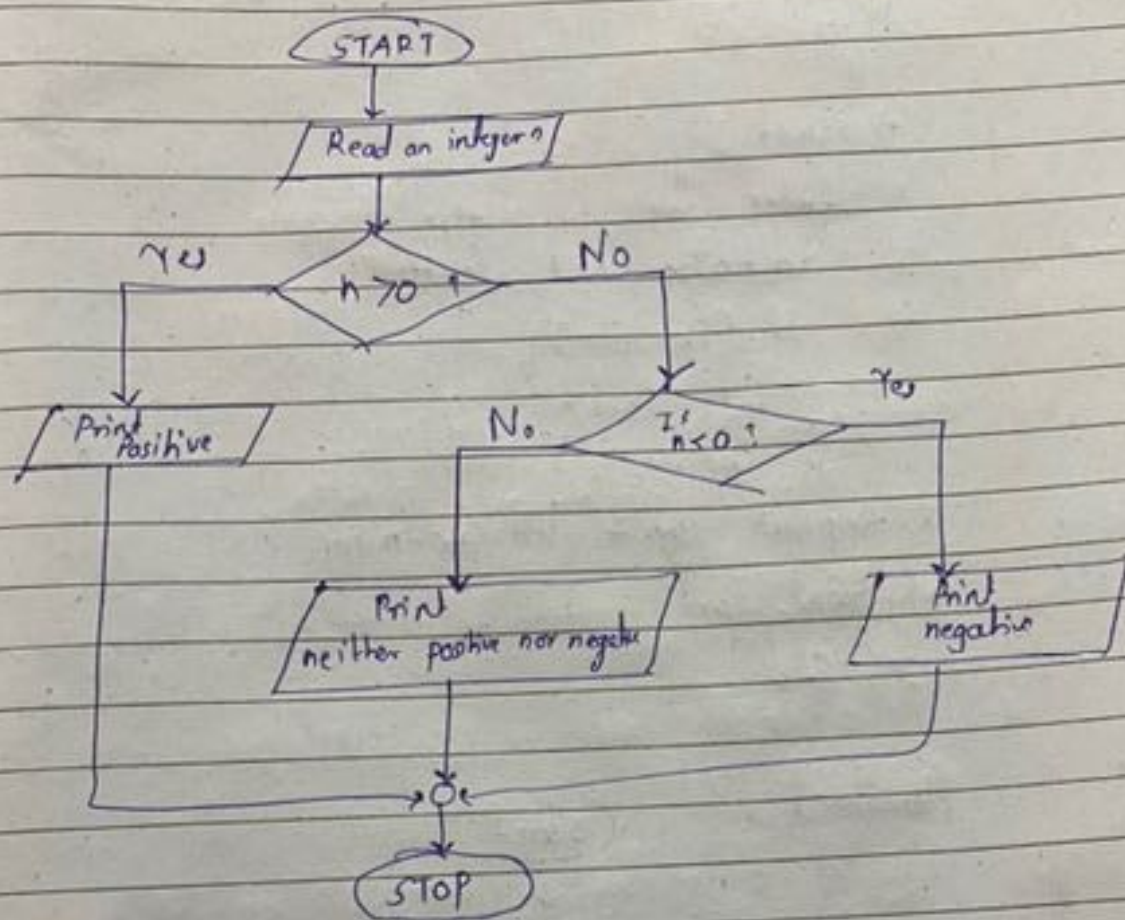
Q.

Swap two numbers without using 3rd variable approach

-
- step 1 : start
 - step 2 : Enter x, y
 - step 3 : Print x, y
 - step 4 : $x = x + y$
 - step 5 : $y = x - y$
 - step 6 : $x = x - y$
 - step 7 : Print x, y
 - step 8 : End



Given number is Positive or negative in java?



Algo :-

- 1) start
- 2) Read an integer n
- 3) Put a condⁿ for n
i.e. $n > 0$?

a) If yes, print positive
if no, check for $n < 0$

c) If $n < 0$, print negative

d) stop

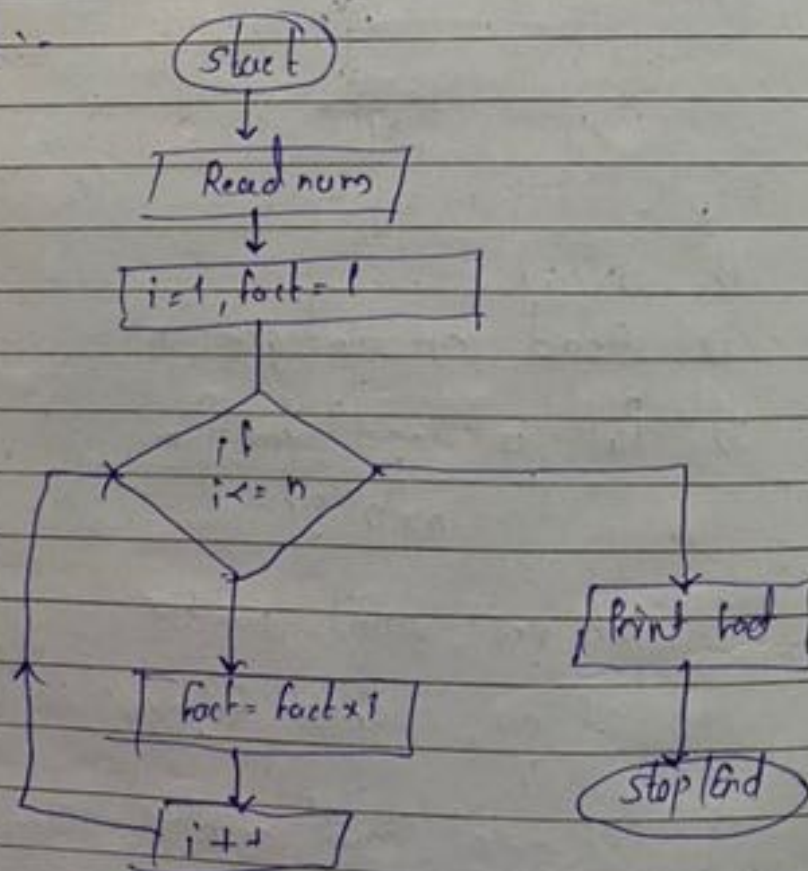
Q.

To find factorial of given no.

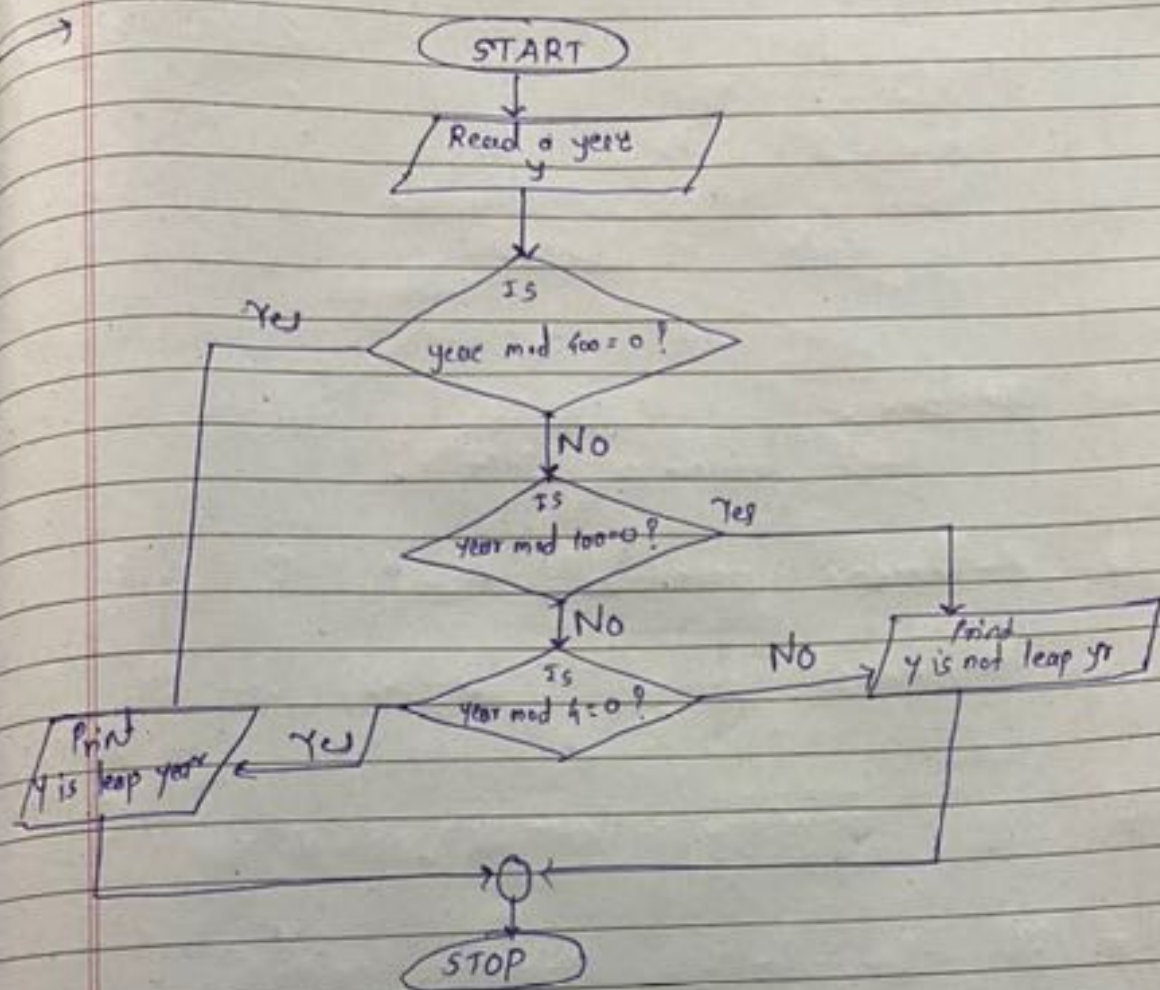
Algorithm:-

- 1) start
- 2) Enter the number
- 3) initialize $i=1$, $fact=1$
- 4) if ($i \leq num$)
 $fact = fact \times i$
 $i = i + 1$
- 5) Repeat step 4 till $i \leq num$
- 6) print fact
- 7) End

Flowchart:-



Q. Whether given number is leap year or NOT?



1) start

2) Read a given year y

3) put condⁿ for y
 $\text{year mod } 400 = 0?$

4) If yes, print y is leap year

5) If No, check for $y \text{ mod } 100 = 0?$

6) If yes, print y is not leap yr

7) check for $\text{year mod } 4 = 0?$

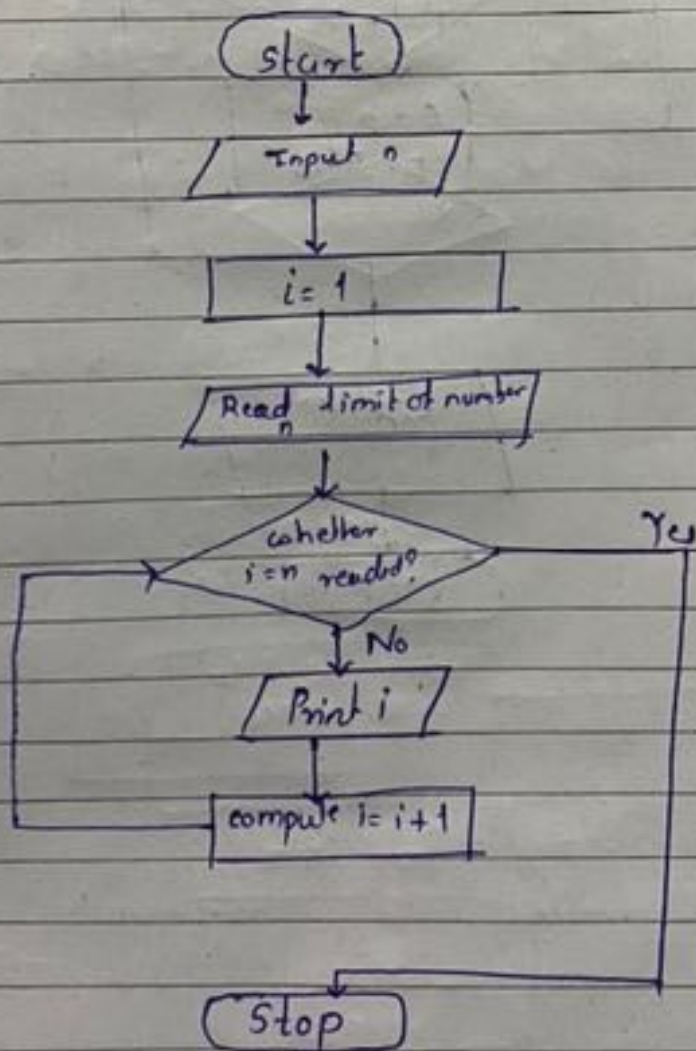
If yes, print y is leap year

If no, print y is not leap yr

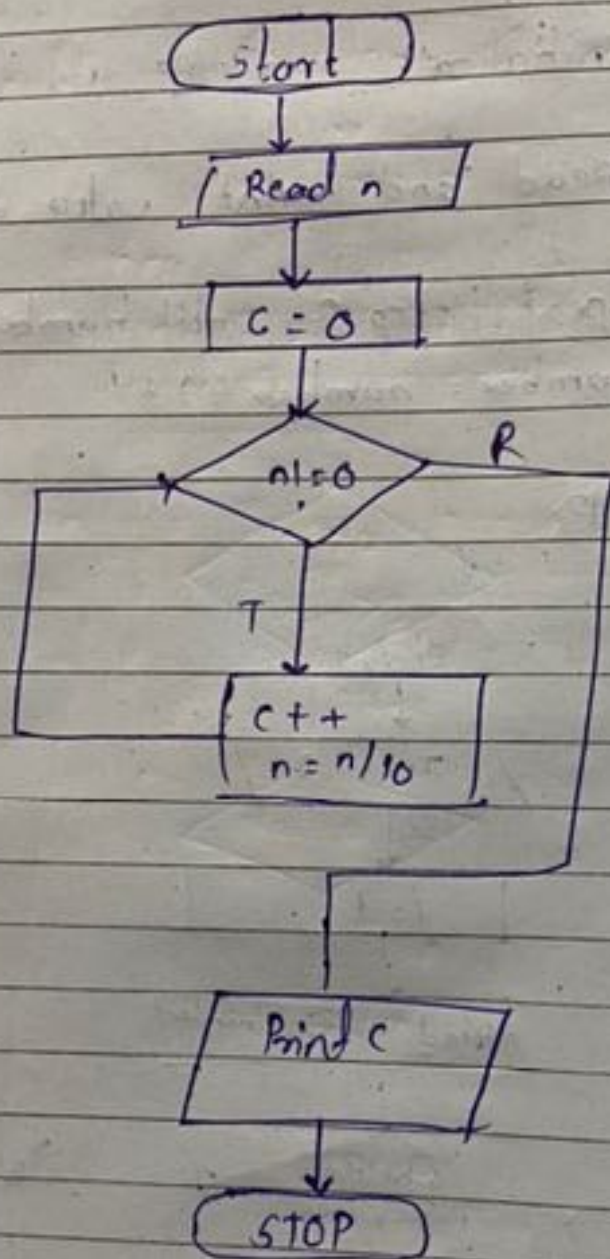
8) stop

Q. Print 1 to 10 without using loop

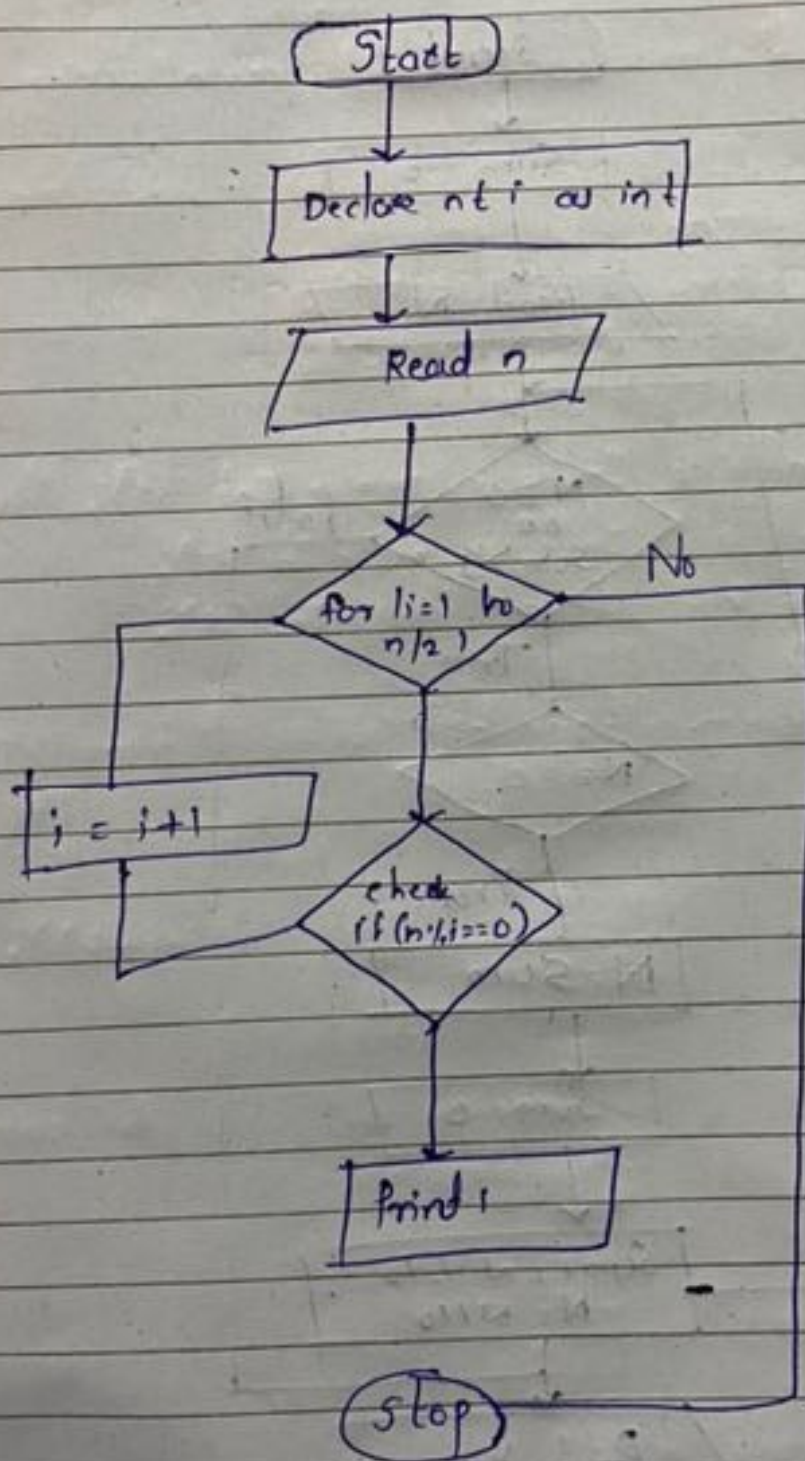
- Step 1):- start
- 2) Initialize variable number as integer
 - 3) Read and print value of number
 - 4) Repeat step 3 until number < 10
number = number (n) + 1
 - 5) Stop.



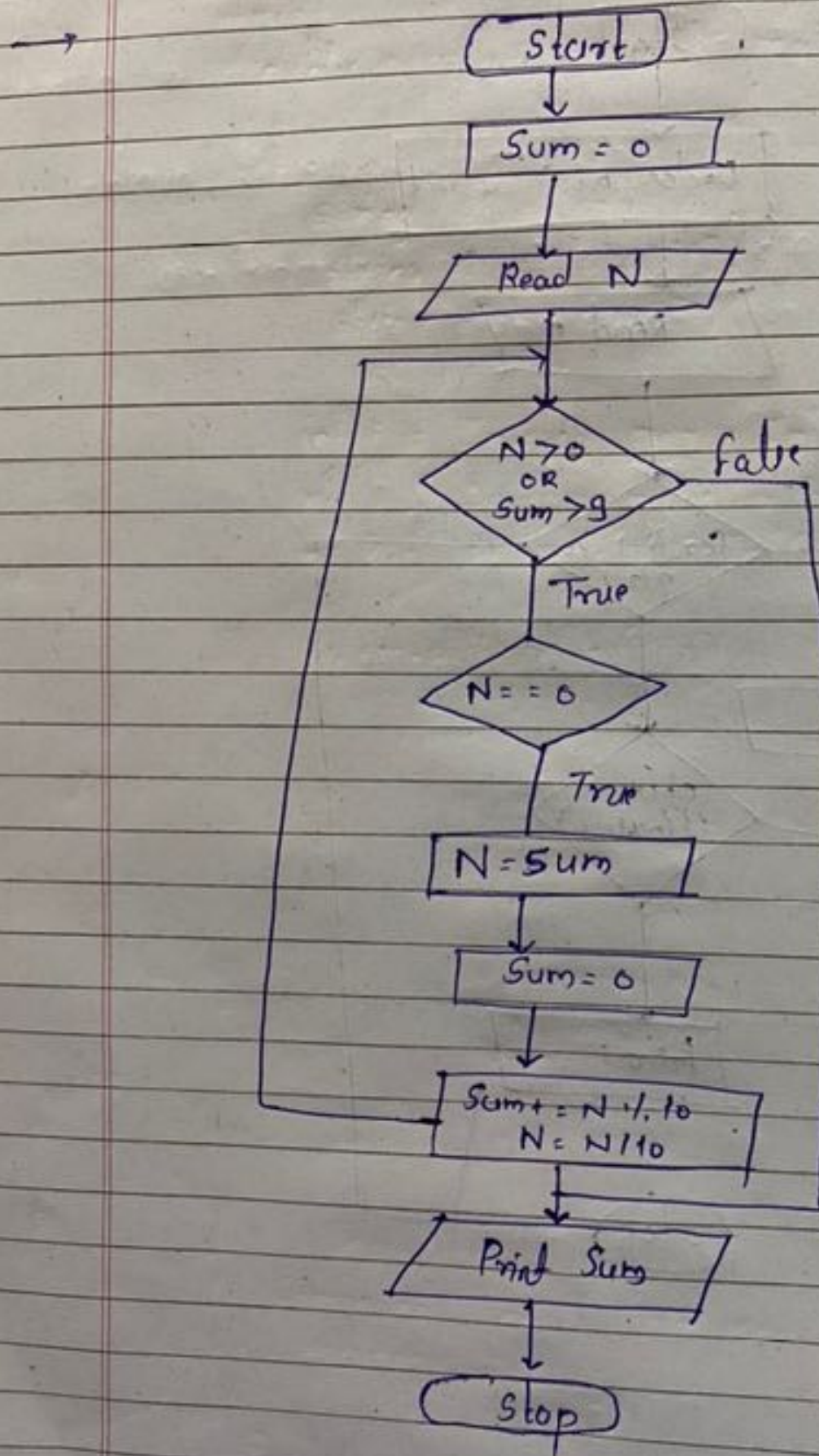
Q. Print digits of a given number



q. Print all factors of given number.

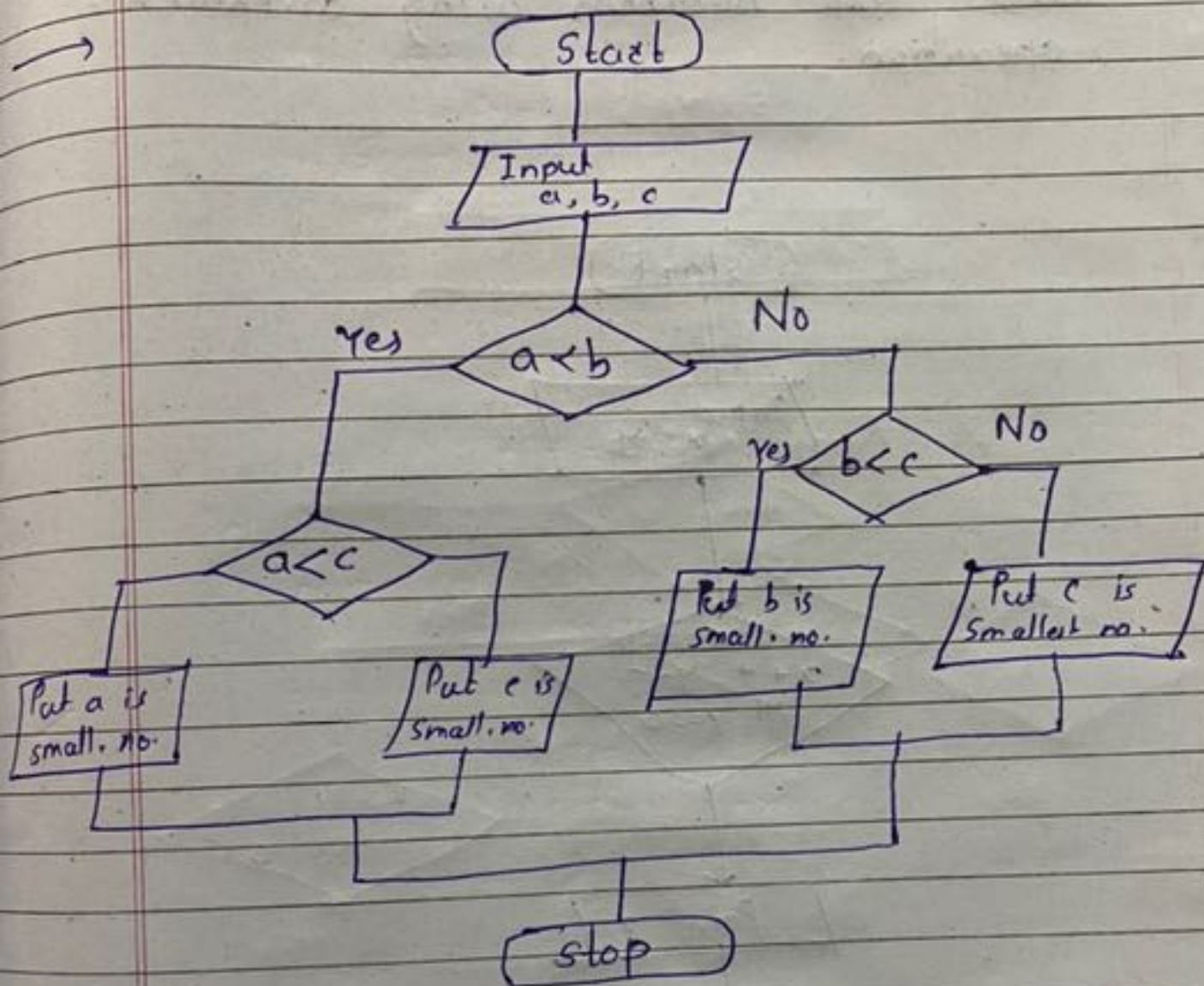


Q. find sum of digits of a given number.



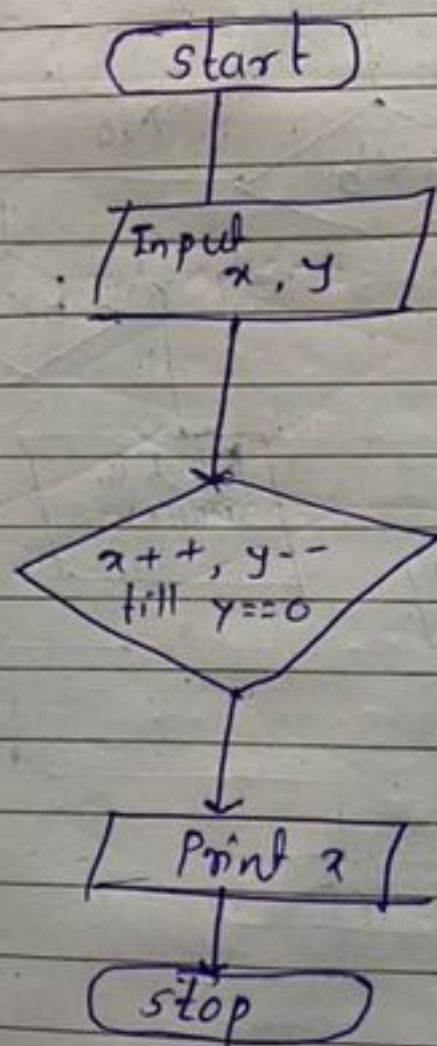
a.

Find the smallest number (a, b, c)



Q.

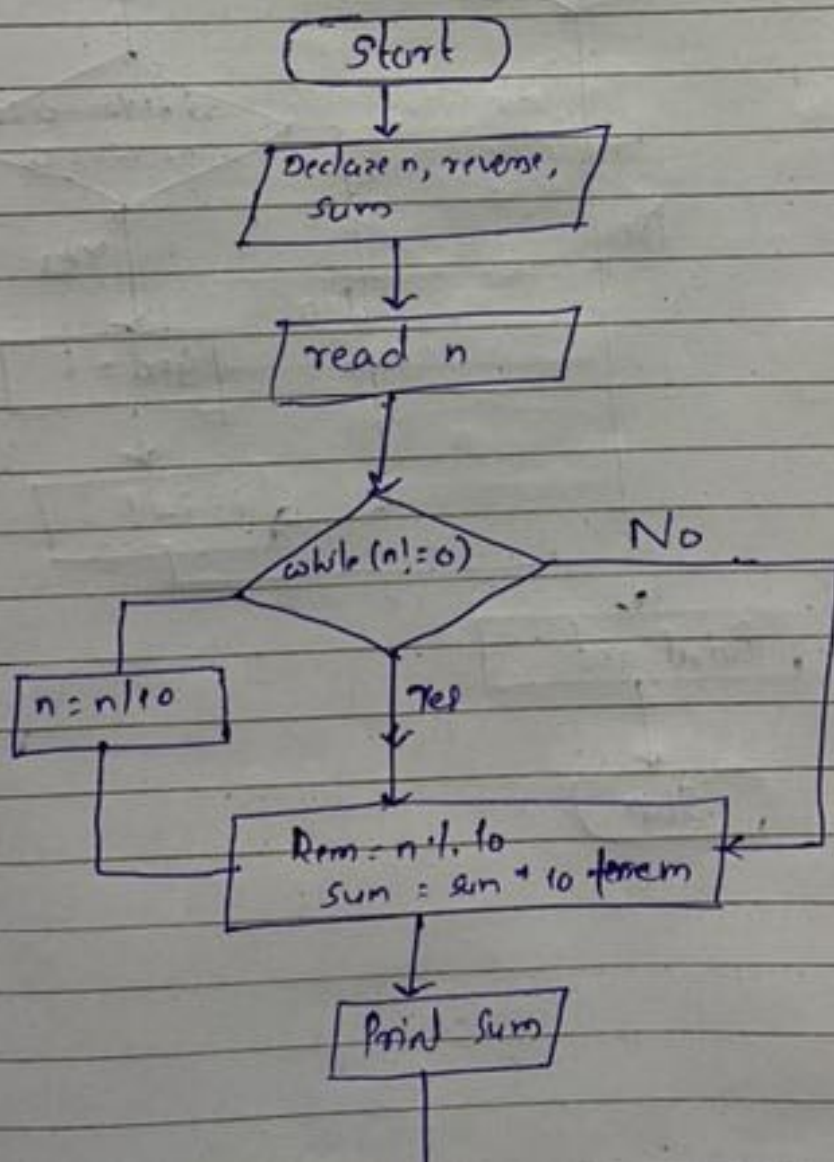
Add two numbers using arithmetic operation.



Q. To reverse a given number

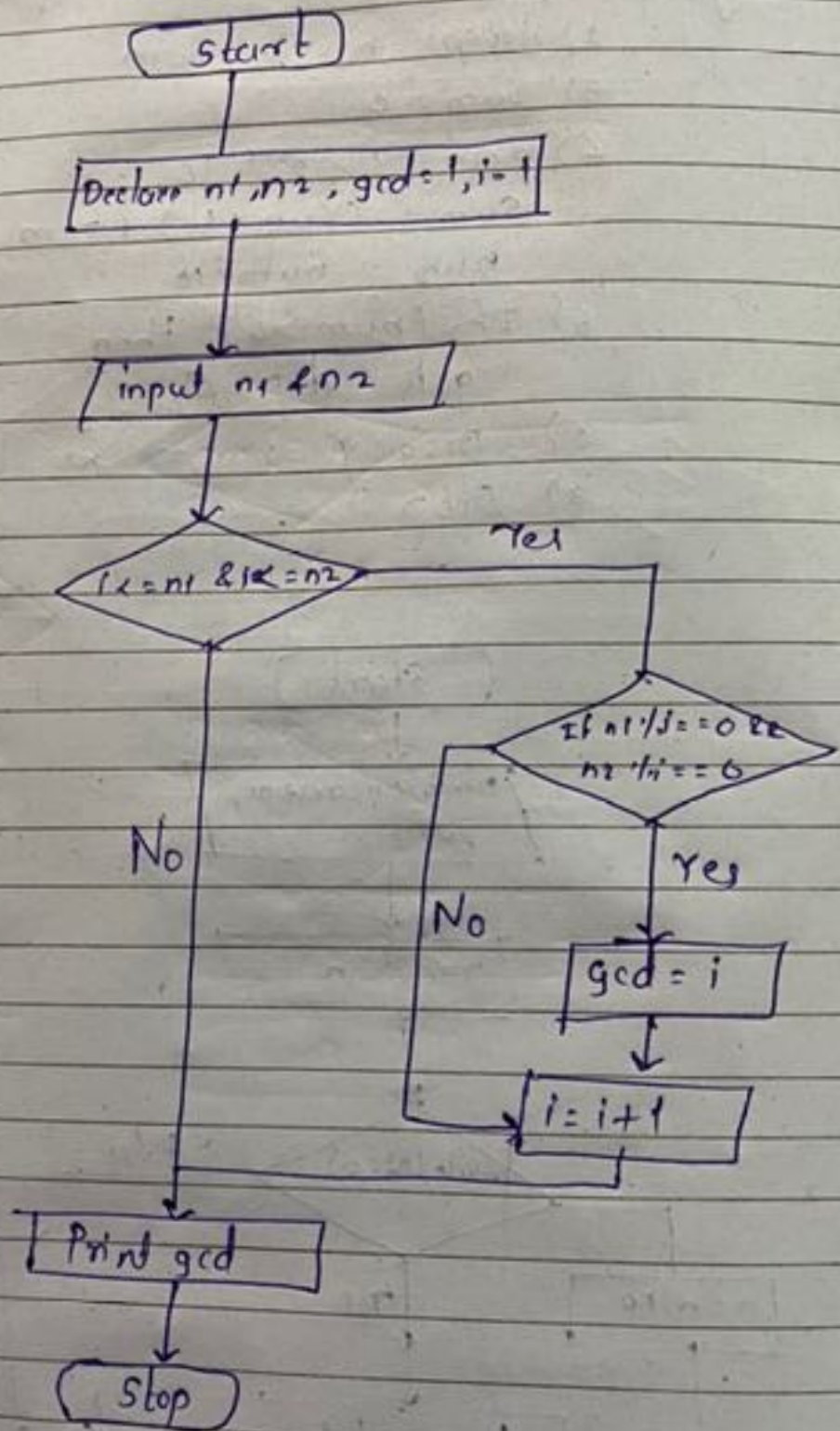
→ Algo. :-

- 1) Start
- 2) Accept no. i.e. num
- 3) $sum = 0$
- 4) $rem = num \% 10$
 $sum = (sum \times 10) + rem$
 $num = num / 10$
- 5) If $(num > 0)$, then
goto step 4
- 6) Display reverse no i.e. sum
- 7) Stop



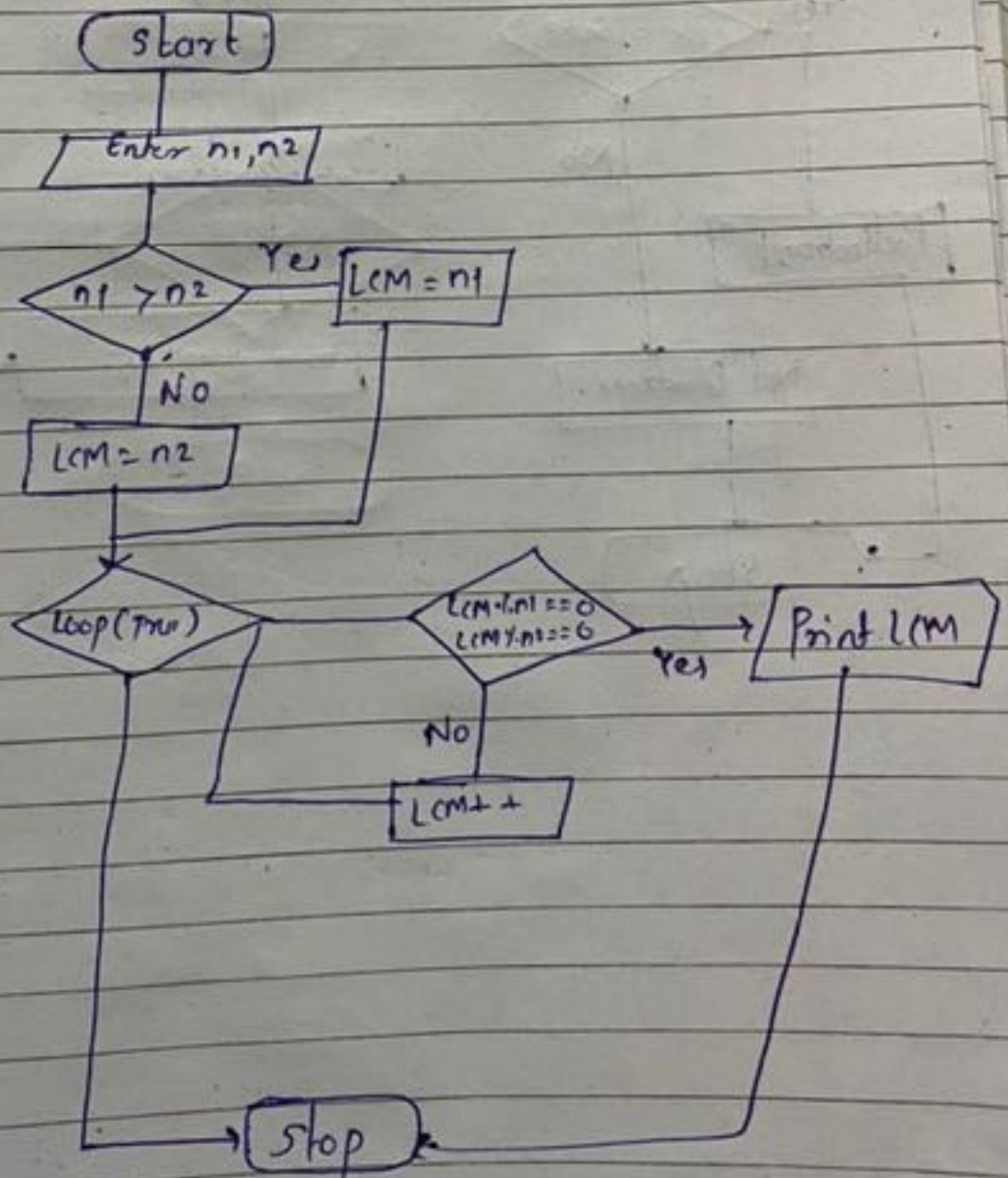
Q.

GCF of two given numbers

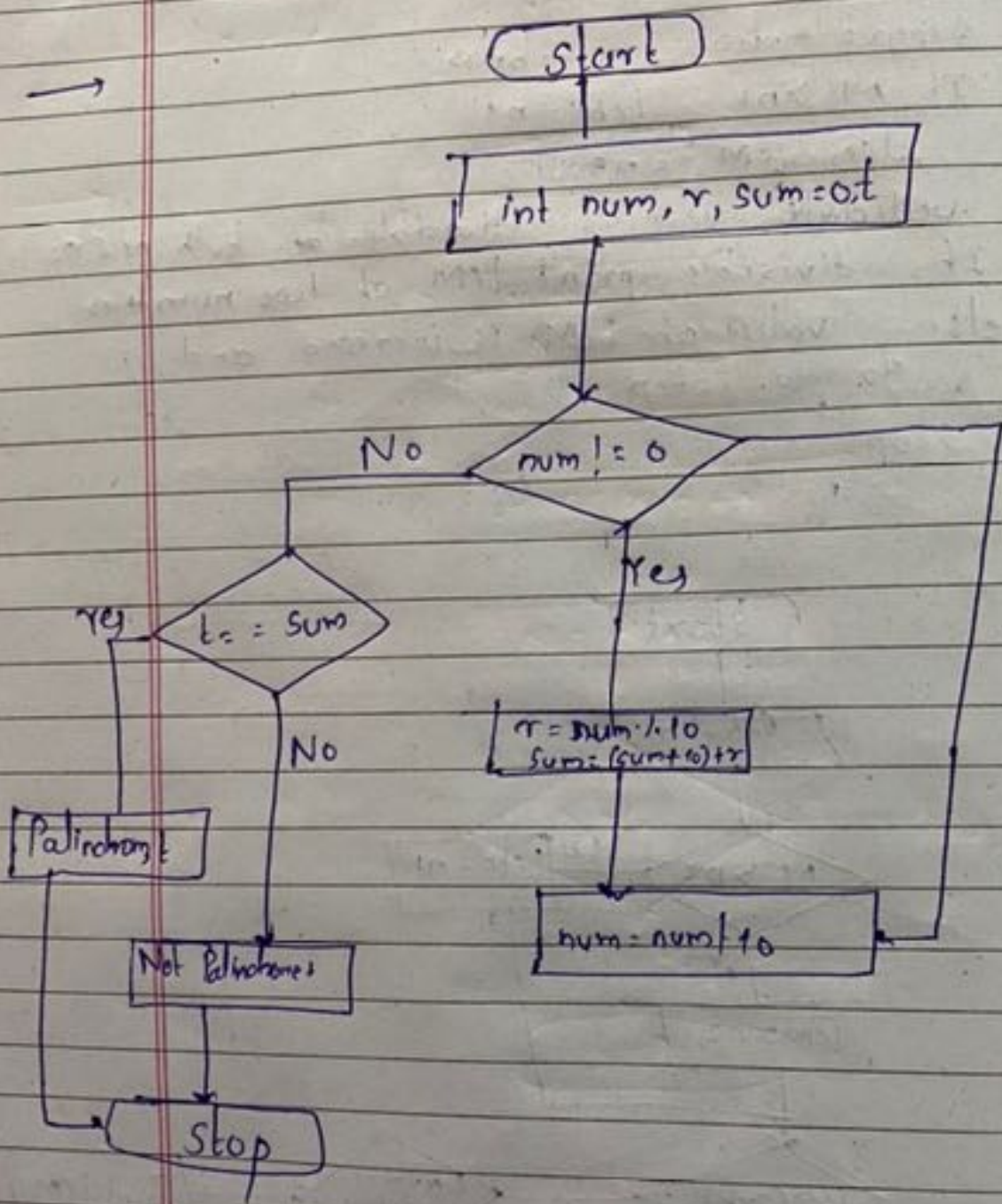


Q. LCM of two given number

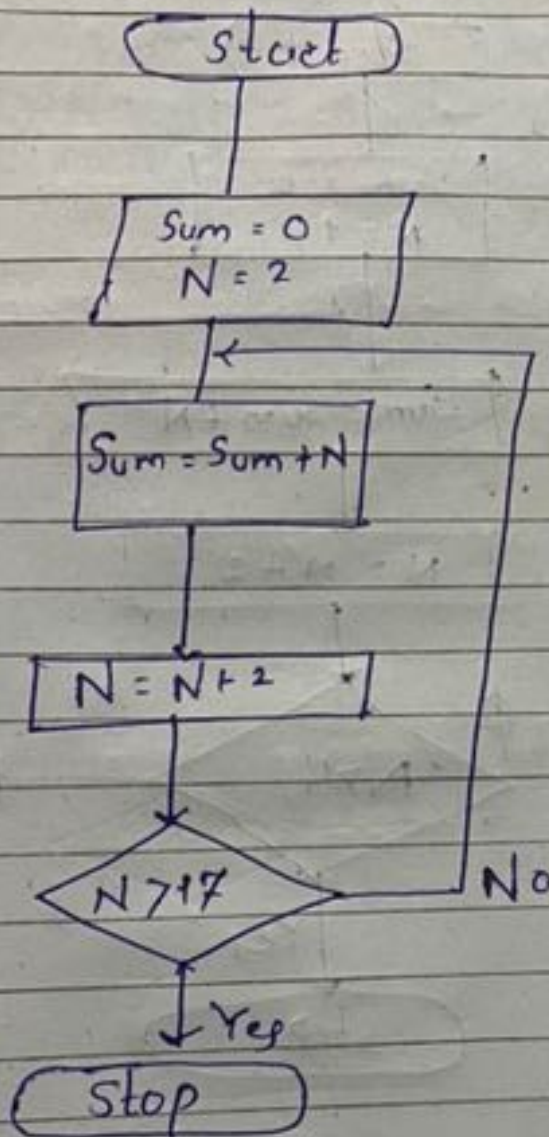
-
- 1) start
 - 2) Accept two numbers
 - 3) If $n_1 > n_2$ $LCM = n_1$
else $LCM = n_2$
 - 4) validate LCM is divisible by both n_1 & n_2
 - 5) If divisible print LCM of two numbers
 - 6) else value of LCM is increased and go to step 4
 - 7) stop



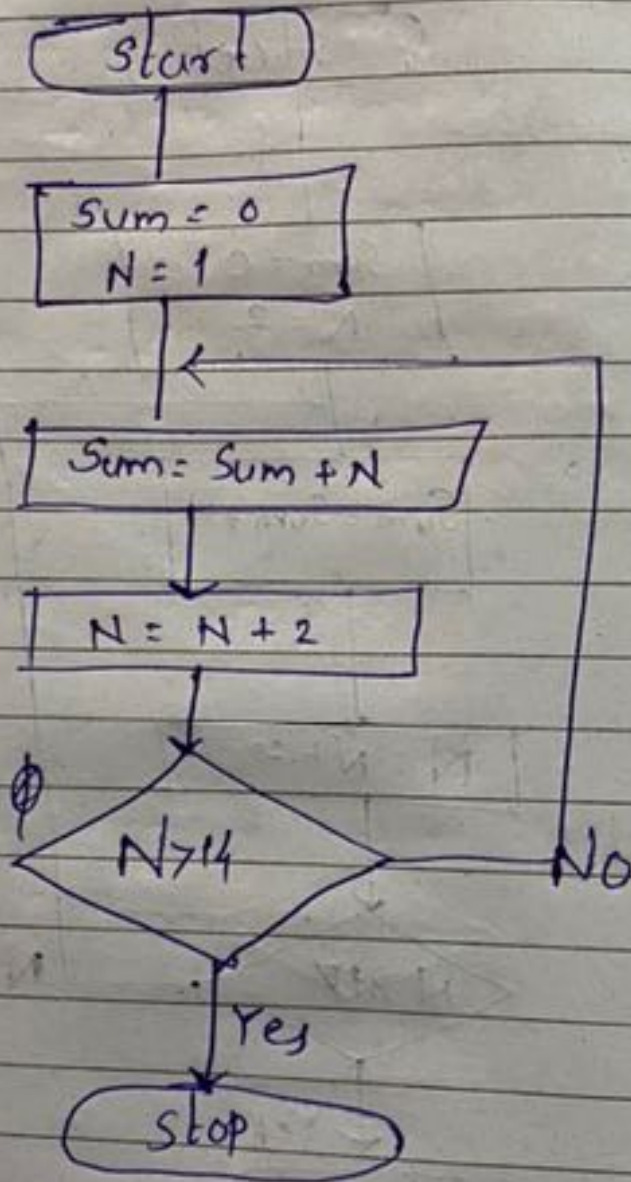
Q. Given number is Palindrome or Not.



Even number from Particular range
2, 4, 6, 8, ... 16



Q. Print odd number series from particular range
1, 3, 5, 7, 9, ... 13



Print all Prime factors of given number.

