

Assignment :- 1

CLASSMATE

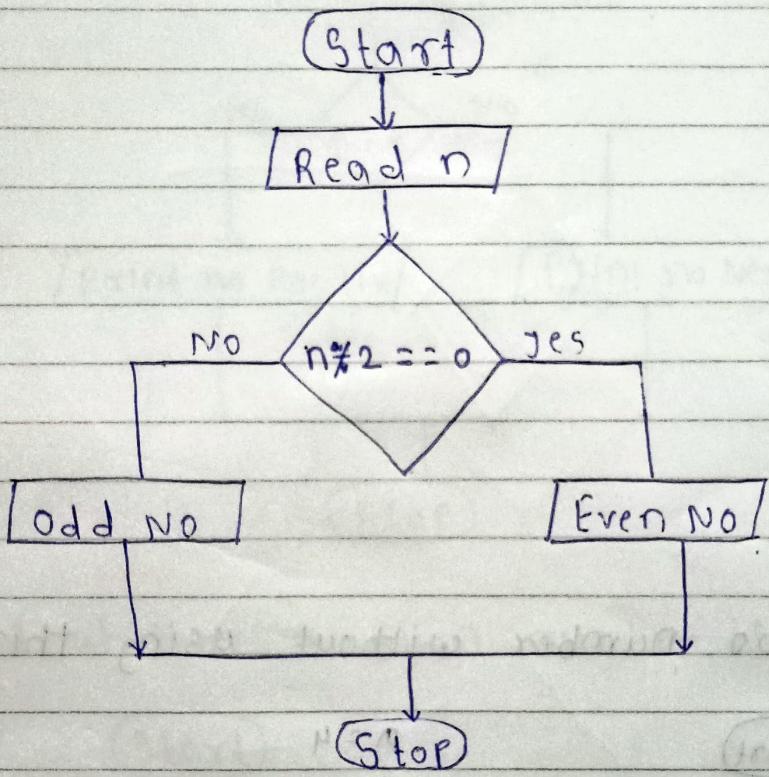
Date _____
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write Algorithm & Flowcharts

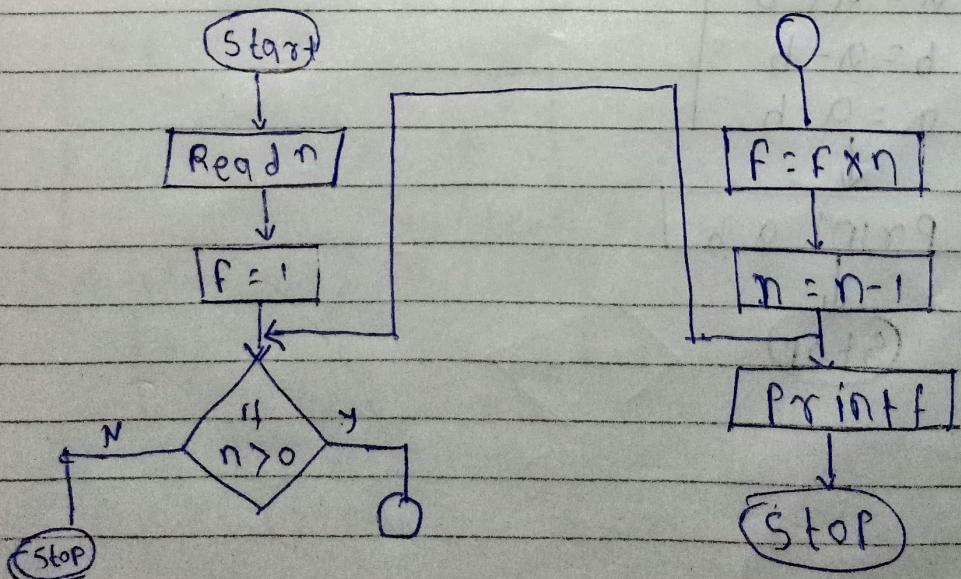
Q

- check if the given number is Even or odd

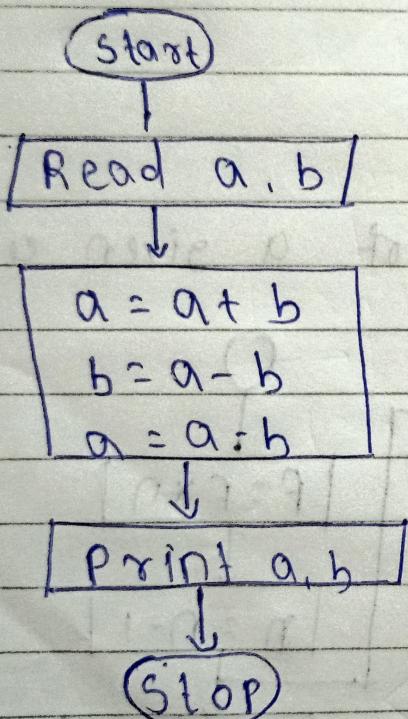
Flowchart



- To find the factorial of a given number



4) Swap two number without using third variable

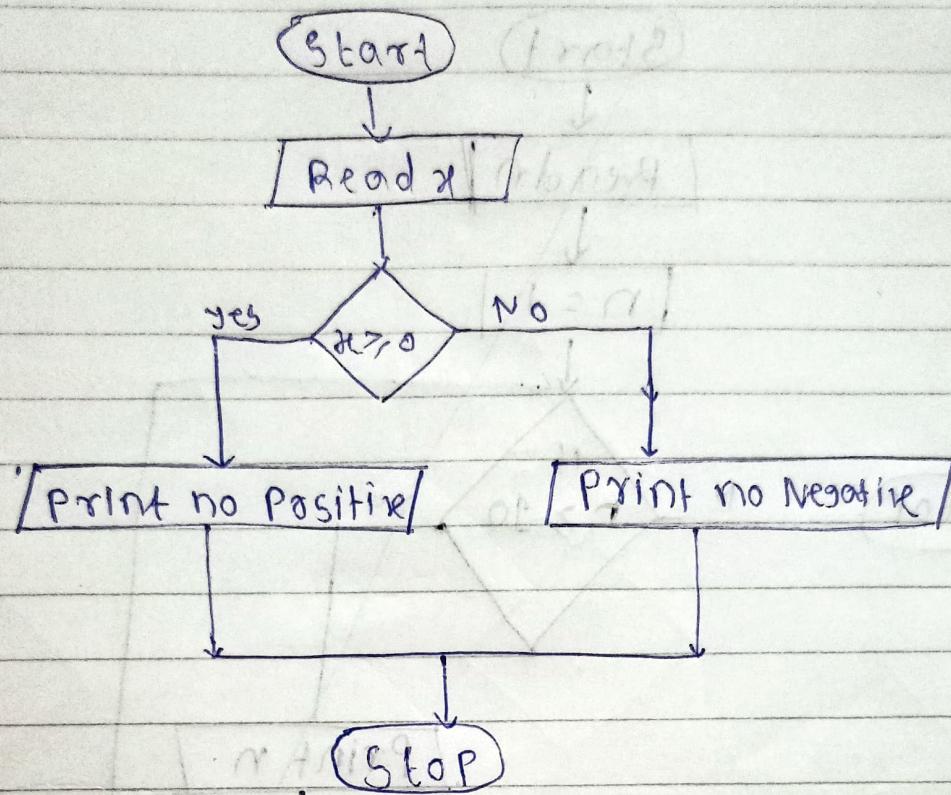


$a = 4$

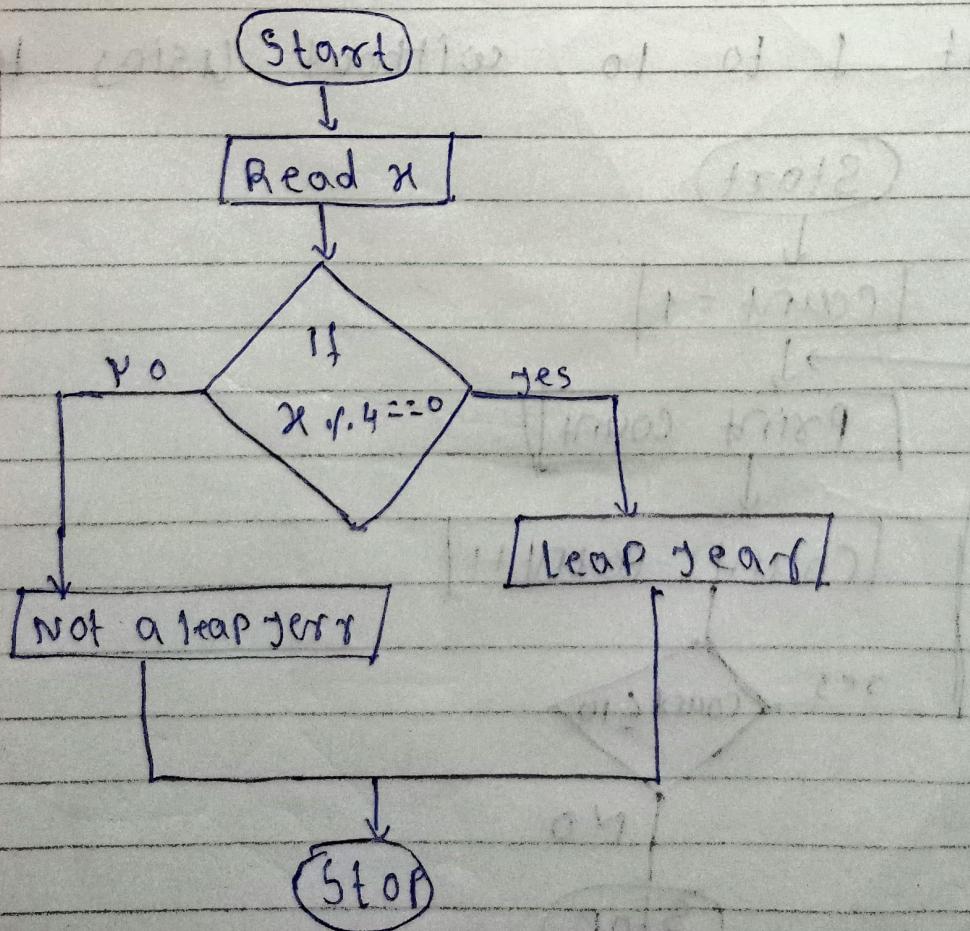
$b = 5$

Interchange
a value

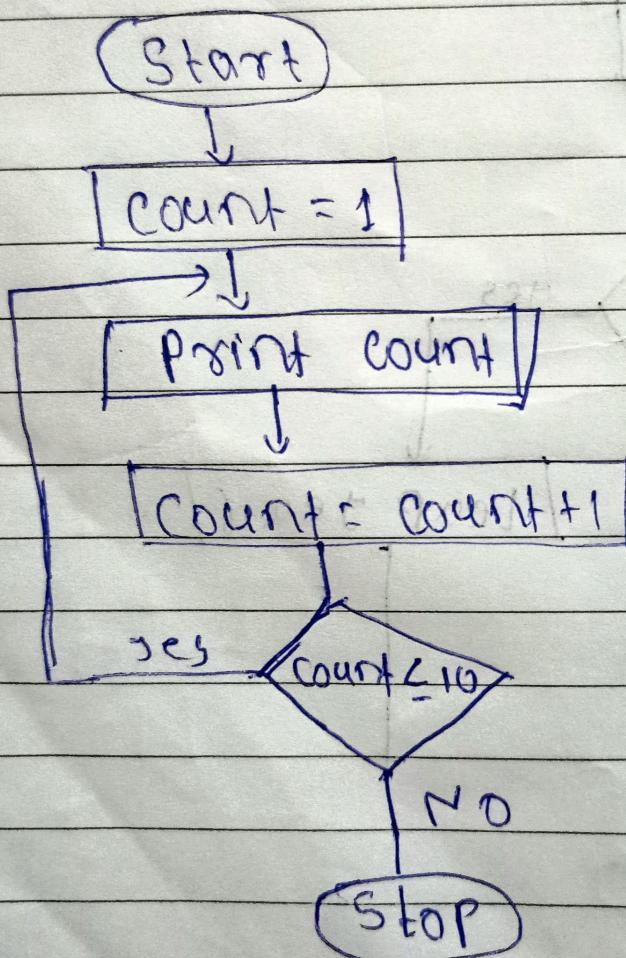
5) check the given no is Positive or Negative.



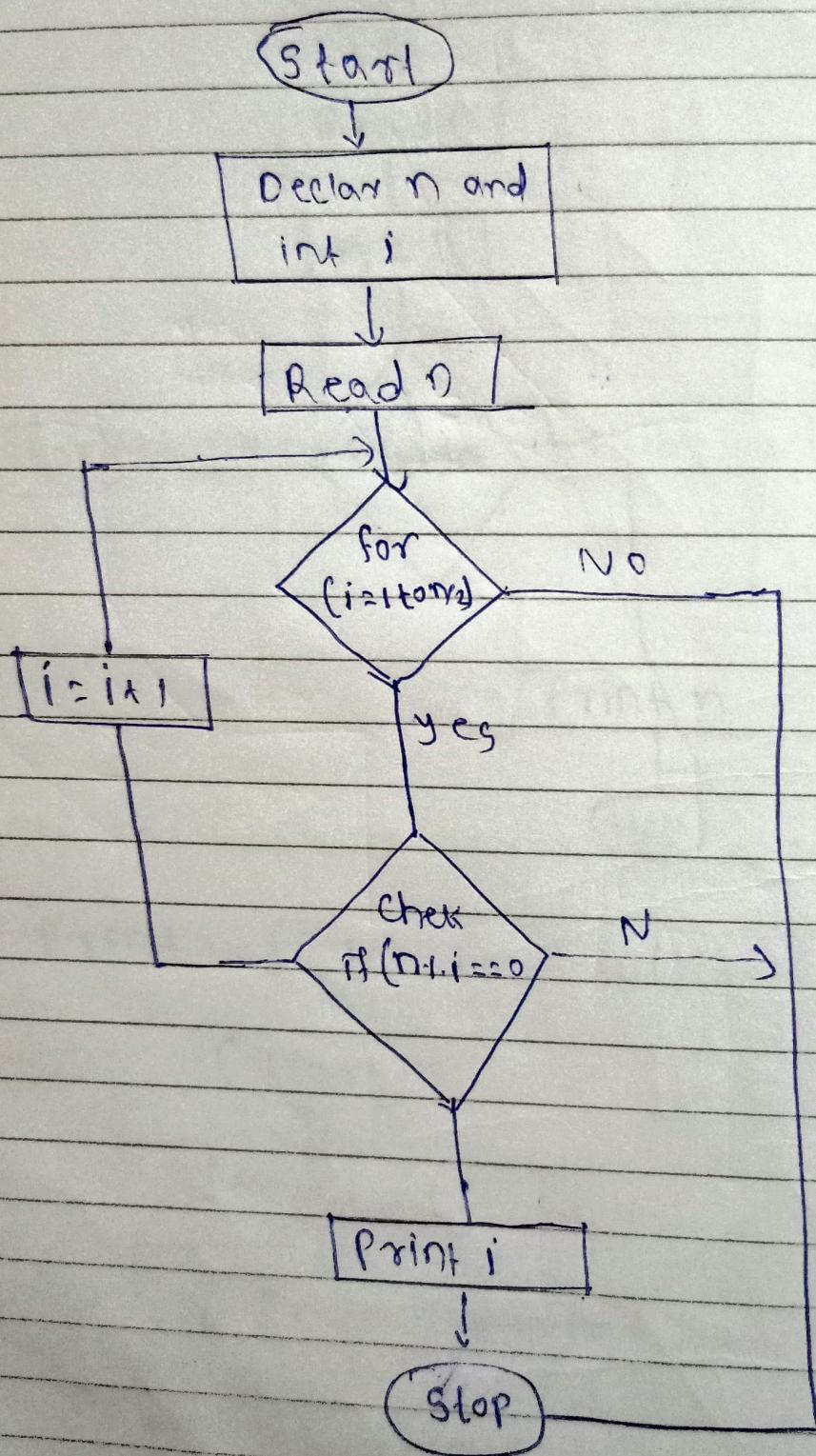
6) find whether a given number is leap year or not



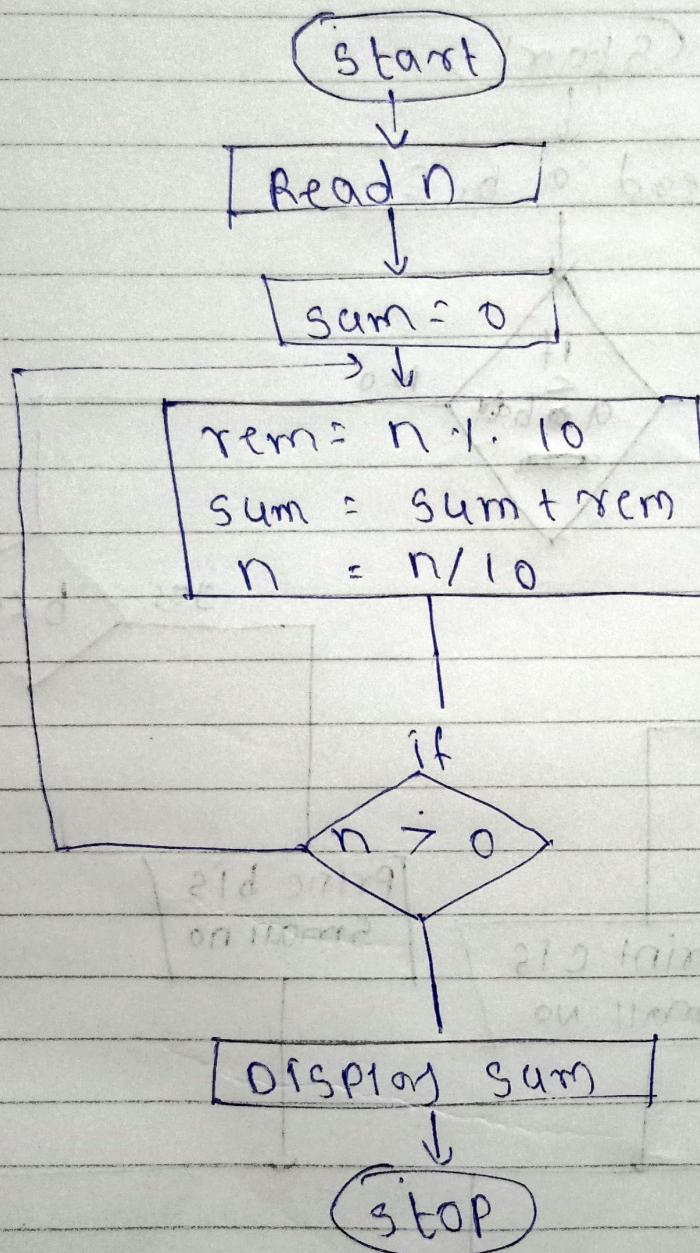
7) To print 1 to 10 without using loop



9) Draw a flowchart to Print the factors of a given number



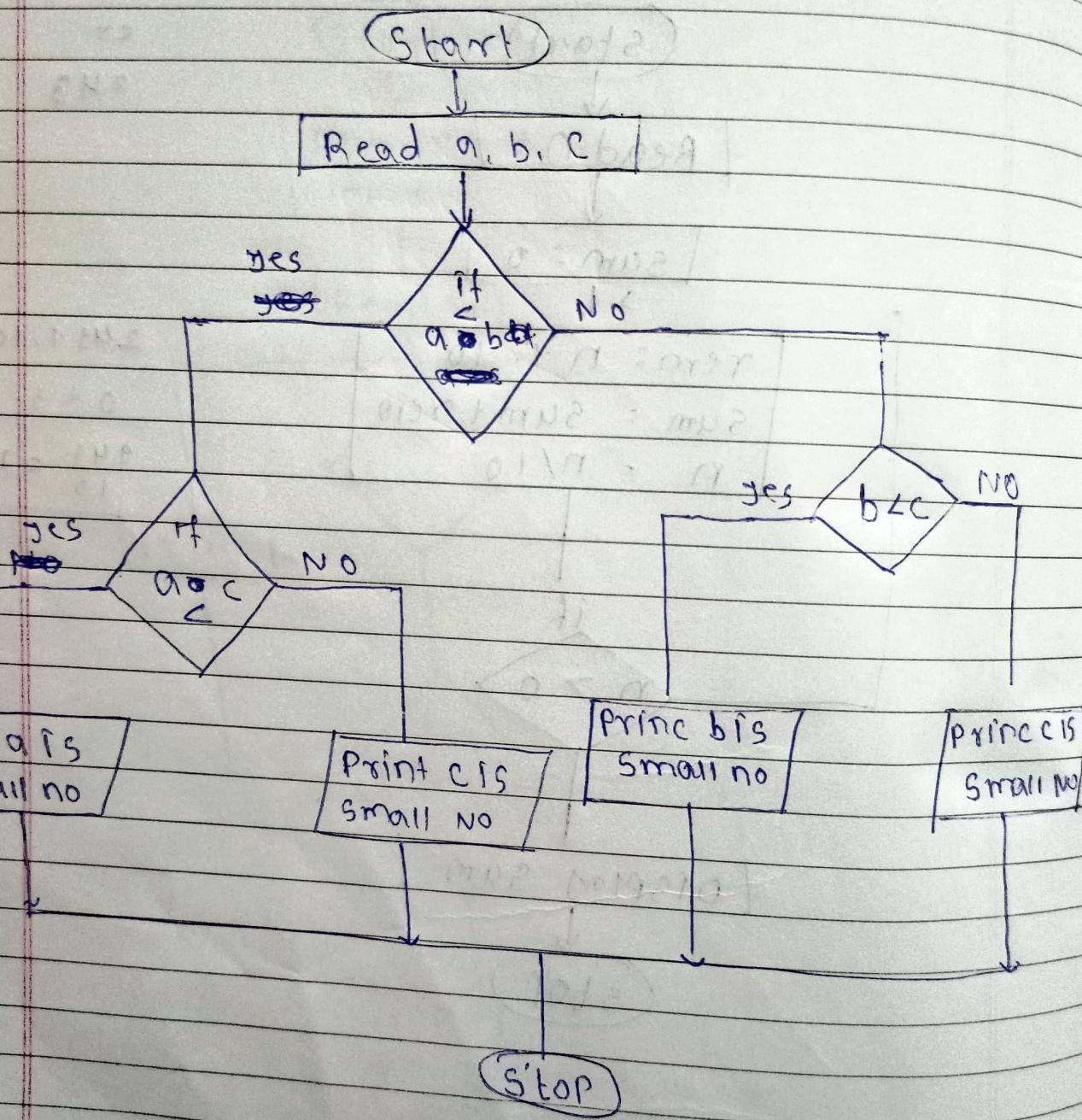
10 Draw a flowchart to find the sum of the digits of a given number.



ex
243

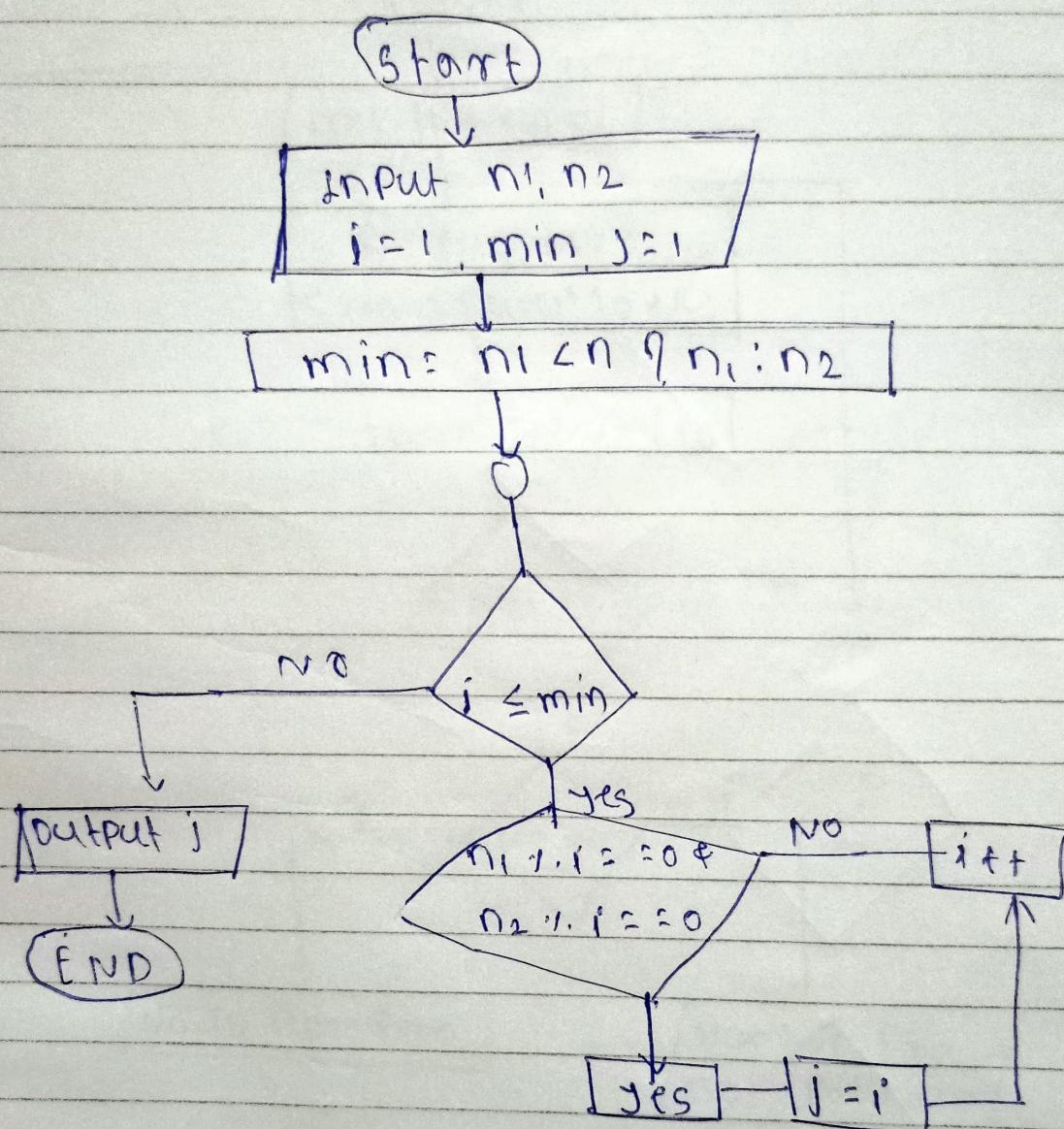
$$\begin{array}{r} 243 \\ \times 10 \\ \hline 243 \\ 0+3=3 \\ \hline 243 \\ \frac{10}{10} \end{array}$$

Q 11) Draw a flowchart to find smallest of three numbers.

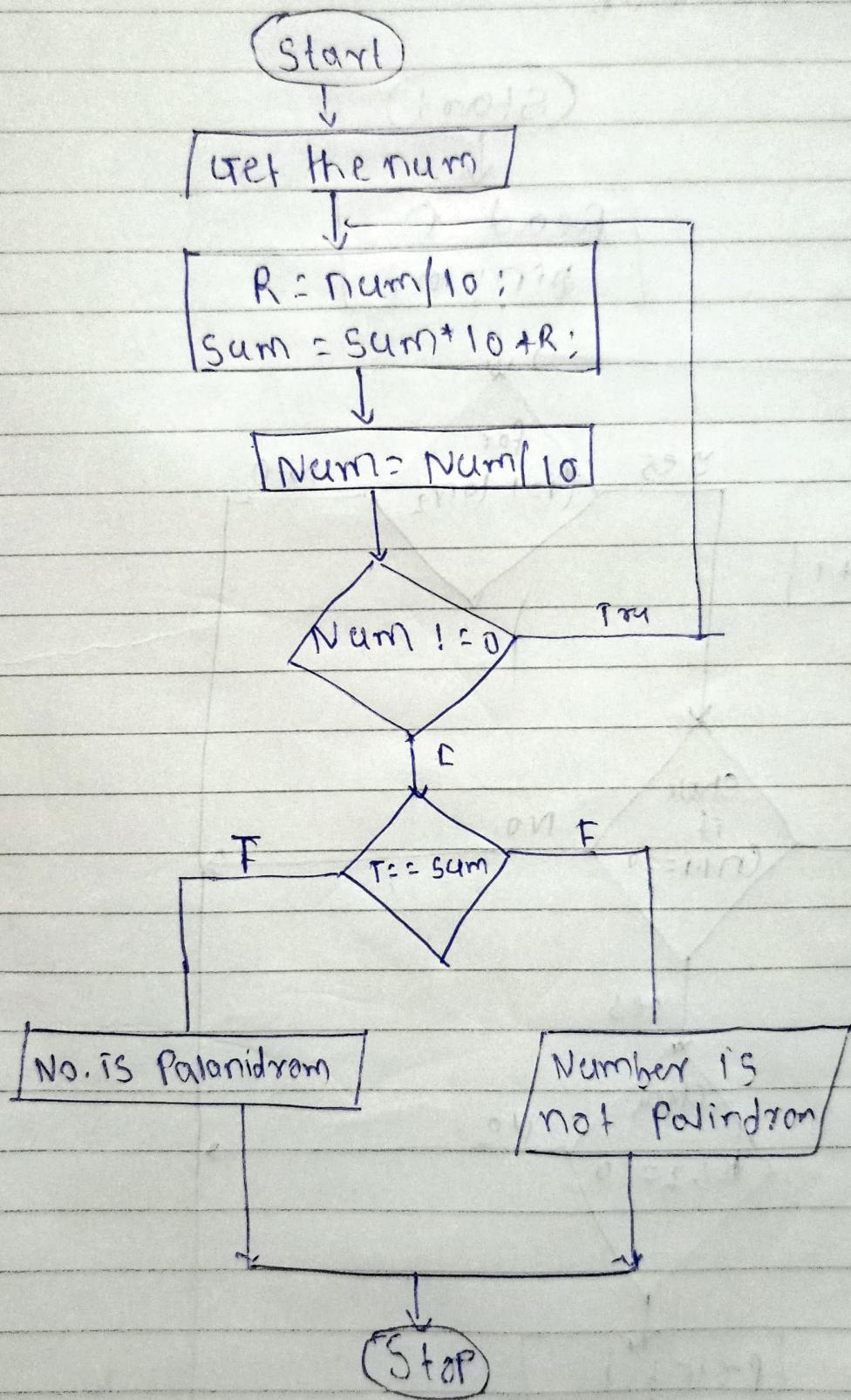


Q.14

Flowchart to find GCD of two numbers

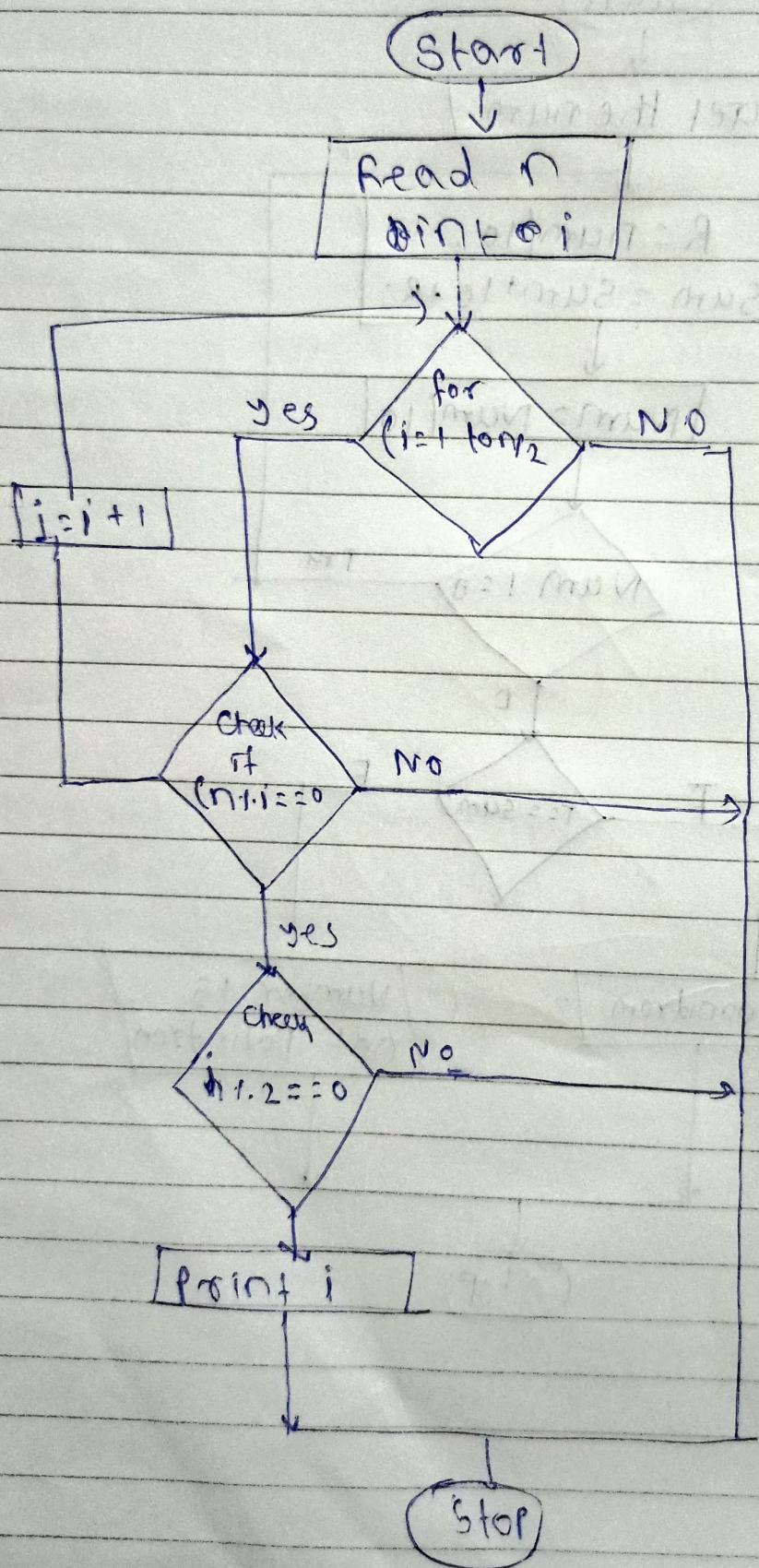


Q17 Flowchart of And Palindrome or not.

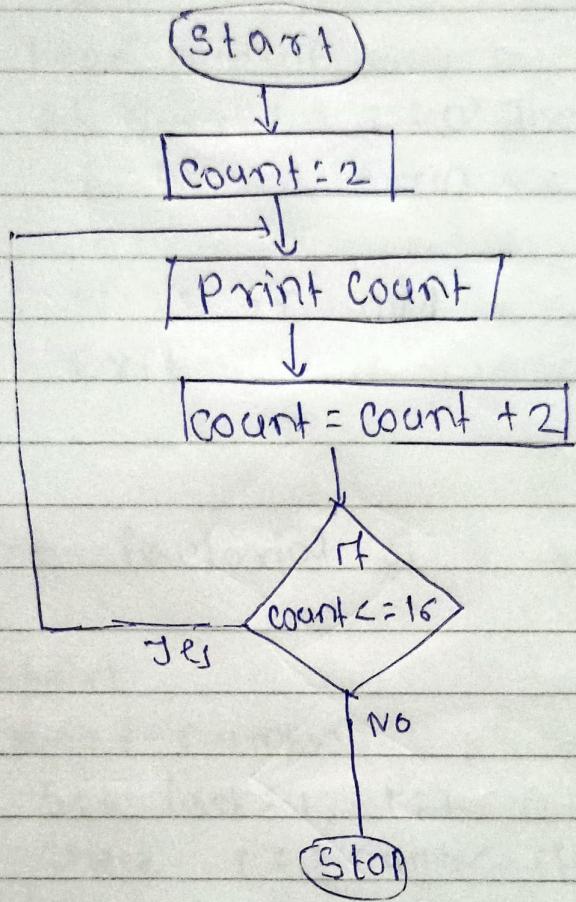


Q 18

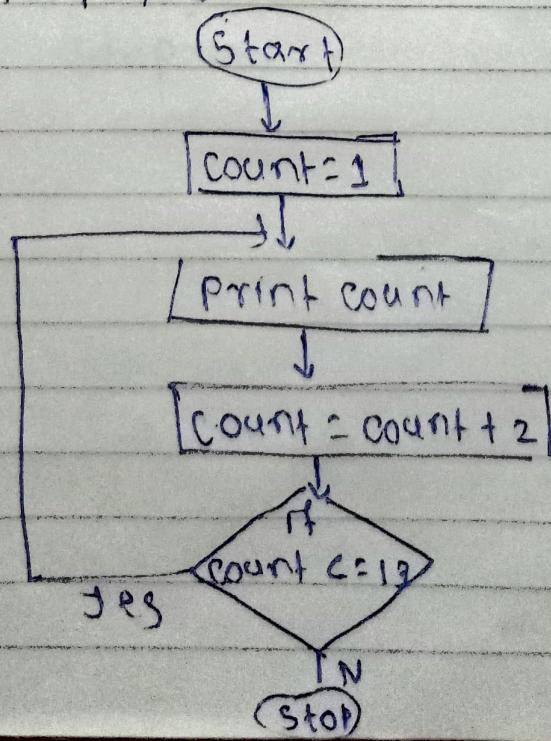
flowchart to print prime factors of the given number.



Q19 Print the following series (even)
2, 4, 6, 8, 10, 12, 14, 16



Q20 Flowchart to print odd number Series
1, 3, 5, 7, 9, 11, 13



Algorithm

① To print number is even or odd

Step 1 : Start

Step 2 : Read Number

Step 3 : If $N \mod 2 = 0$ Then

Print : N is an even

Else

Print : N is an odd

Step 4 : Exit

2) Find the factorial of a given number

Step 1 : Start

Step 2 : Read number

Step 3 : Set fact = 1, i = 1

Step 4 : Check $i \leq \text{number}$ If false go to Step 7

Step 5 : fact = fact * i;

Step 6 : Update $i = i + 1$ go to Step 4

Step 7 : Display fact

Step 8 : Stop

4) Swap two number without using 3rd variable.

Step 1 : Start

Step 2 : Enter A, B

Step 3 : Print A, B

Step 4 : $A = A + B$

Step 5 : $B = A - B$

Step 6 : $A = A - B$

Step 7 : Print A, B

Step 8 : End.

5) Given number is Positive or Negative

Step 1 : Start

Step 2 : Enter n

Step 3 : If $n \geq 0$ then

Print : n is positive

Else

Print : n is negative

Step 4 : Stop

6) Given number is leap year or NOT.

Step 1: Start

Step 2: Enter n

Step 3: $n \mod 4 = 0$ then

Print: n is leap year

Else

Print: n is not leap year

Step 4: Stop.

7) Print 1 to 10 without using loop

Step 1: Start

Step 2: Set Count = 1

Step 3: Print Count

Step 4: Count = Count + 1

Step 5: If Count ≤ 10 then go to Step 3

Else

Step 6: Stop.

8) Print factors of given number

Step 1: Start

Step 2: Enter n & int i

Step 3: Read n

Step 4: If $(n \mod i = 0)$ then

Step 5: Check if $(n \mod i = 0)$ then go to Step 5

Else go to Step 6

Step 6: Print i

Step 7: Stop.

10) Find the sum of the digits of given number.

Step 1 : Start

Step 2 : Enter num

Step 3 : sum = 0

Step 4 : rem = num % 10

sum = sum + rem

num = num / 10

Step 5 : If (num > 0) then

 go to step ④

else go to step ⑥

Step 6 : DISPLAY sum

Step 7 : STOP

ii) Find the smallest of 3 numbers

Step 1 : Start

Step 2 : Read a, b, c

Step 3 : Check if $a < b$ & $a < c$ then go to

print: ~~step 6~~ if a is smaller

else goto step 4

Step 4 : Check if $b < c$ then

print: b is smaller

else

print: c is smaller

Step 5 : STOP

18) Print all the prime factor of the given number.

Step 1: Start

Step 2: Read n, int i

Step 3: for(i=1 to n/2) if No:

 go to Step 7

 yes: go to Step 4

Step 4: if (n % i == 0) then

 No: go to Step 1, yes: go to Step 6

Step 5: ~~for~~ i = i + 1

Step 6: if (i * i == n) then

 print: i

else: go to Step 7

Step 7: STOP.

19) To print Even number series

2, 4, 6, 8 ..

Step 1: Start

Step 2: Read n, ~~int~~ count = 2

Step 3: print count

Step 4: count = count + 2

Step 5: if (count <= n) yes go to Step 3

else go to Step 6

Step 6: STOP.

Q 20 To print odd numbers series
1, 3, 5, 7, 9 ...

Step 1 : Start

Step 2 : Read n, Count = 1

Step 3 : Print Count

Step 4 : Count = Count + 2

Step 5 : If (Count <= n) yes go to step 3
else go to step 6.

Step 6 : Stop.