

Write Algorithm and flowchart.

① check the given number is Even or odd.

STEP 1 :- Start

2 :- Read the number from user

3 :- Divide the number by 2 and store the remainder in R.

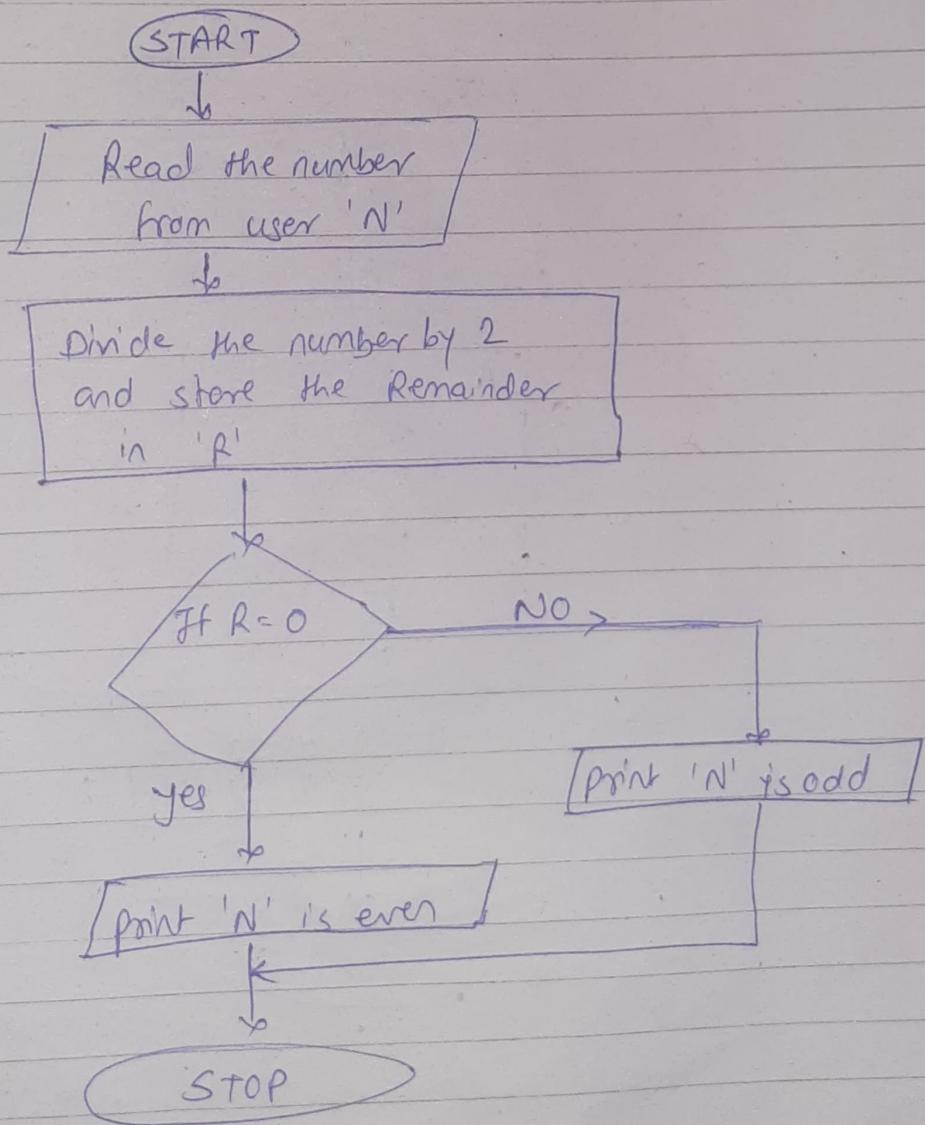
4 :- If $R = 0$ Then go to step 6.

5 :- Print 'N' is 'odd' go to step 7.

6 :- Print 'N' is even.

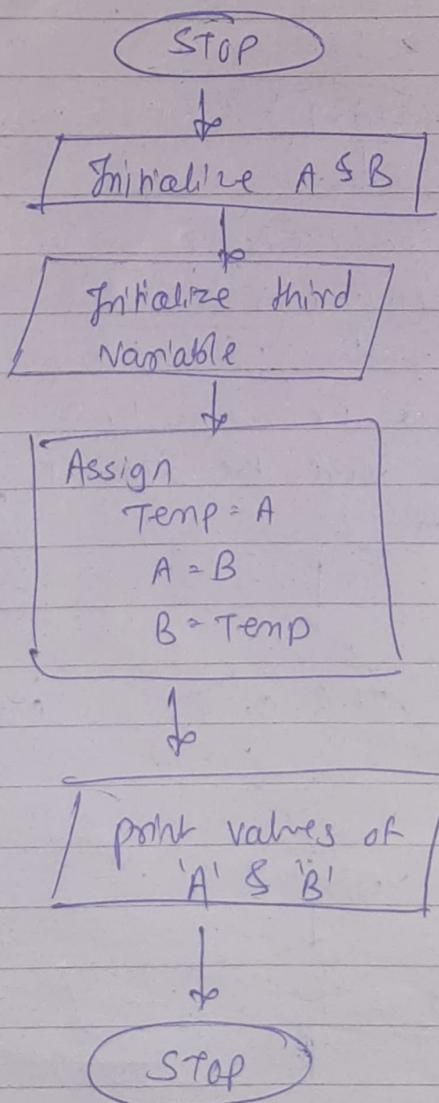
7 :- STOP.

Flowchart.



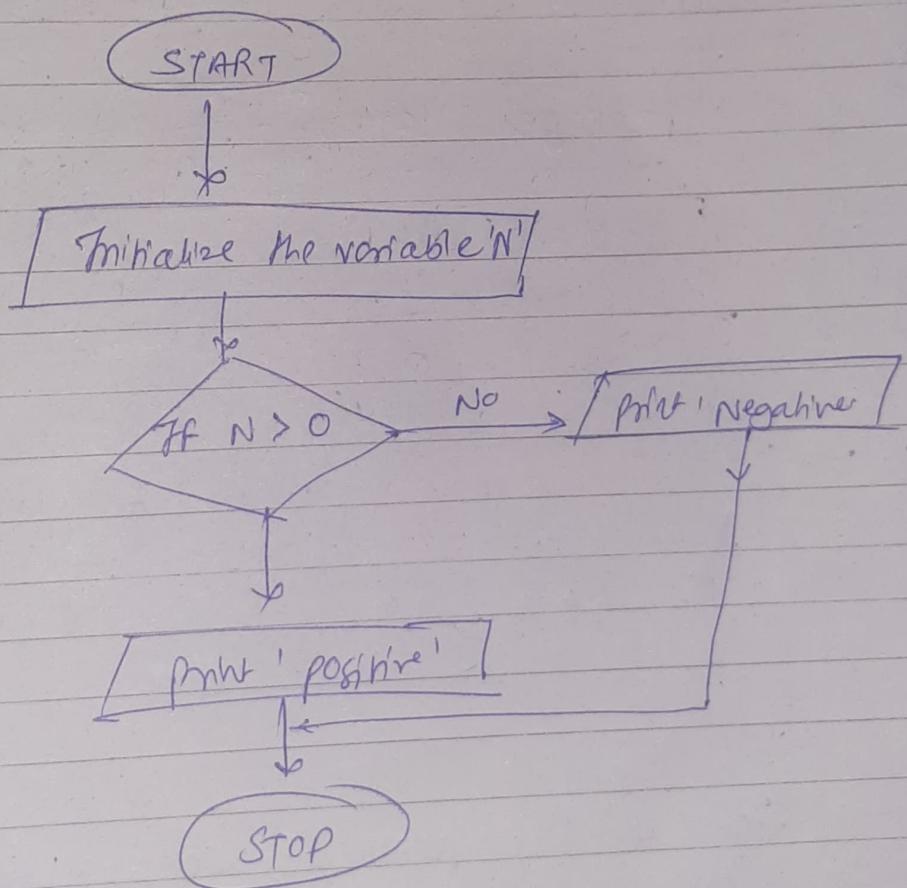
- ② Swap two numbers without using third variable approach

- ① START
- ② initialize ~~Enter~~ two numbers variables 'A' & 'B'
- ③ Enter the values of two numbers.
- ④ Enter the third variable 'Temp'
- ⑤ Copy value of A to Temp.
- ⑥ Copy value of B to A
- ⑦ Copy value of Temp to B.
- ⑧ print the A & B
- ⑨ STOP



⑤ How to check the given number is positive or negative in Java?

- ① START
- ② Initialize the variables.
- ③ Call the funⁿ to check whether no is positive or negative
- ④ Return result
- ⑤ Print 'result'
- ⑥ STOP



(4) Write a Java program to find the factorial of given numbers.

class factorialN

{

 public static void main (String [] args)

{

 int i;

 fact=1;

 int N= 5;

 for (i=1 ; i<=N ; i++)

 fact = fact * i;

}

 System.out.println ("Factorial of " + fact);

}

Algorithm

Step 1 : Start

2 : Read number

3 : Set fact=1, i=1

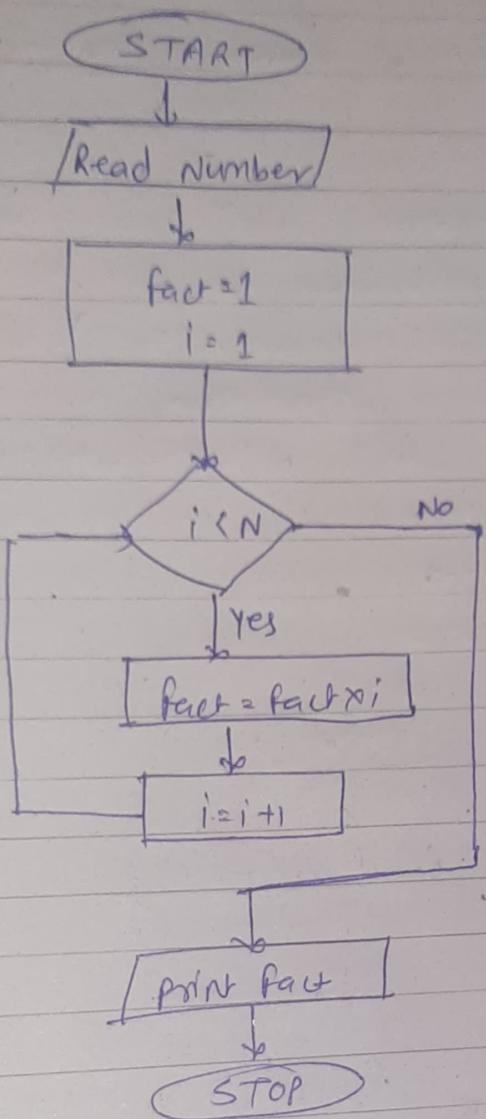
4 : Check condition $i < N$, if false go to step 7

5 : fact = fact \times i

6 : Increment the $i = i + 1$, go to step 4

7 : print fact

8 : STOP



⑤ Find factorial of number using Recursion.

Algo

Step 1 : START

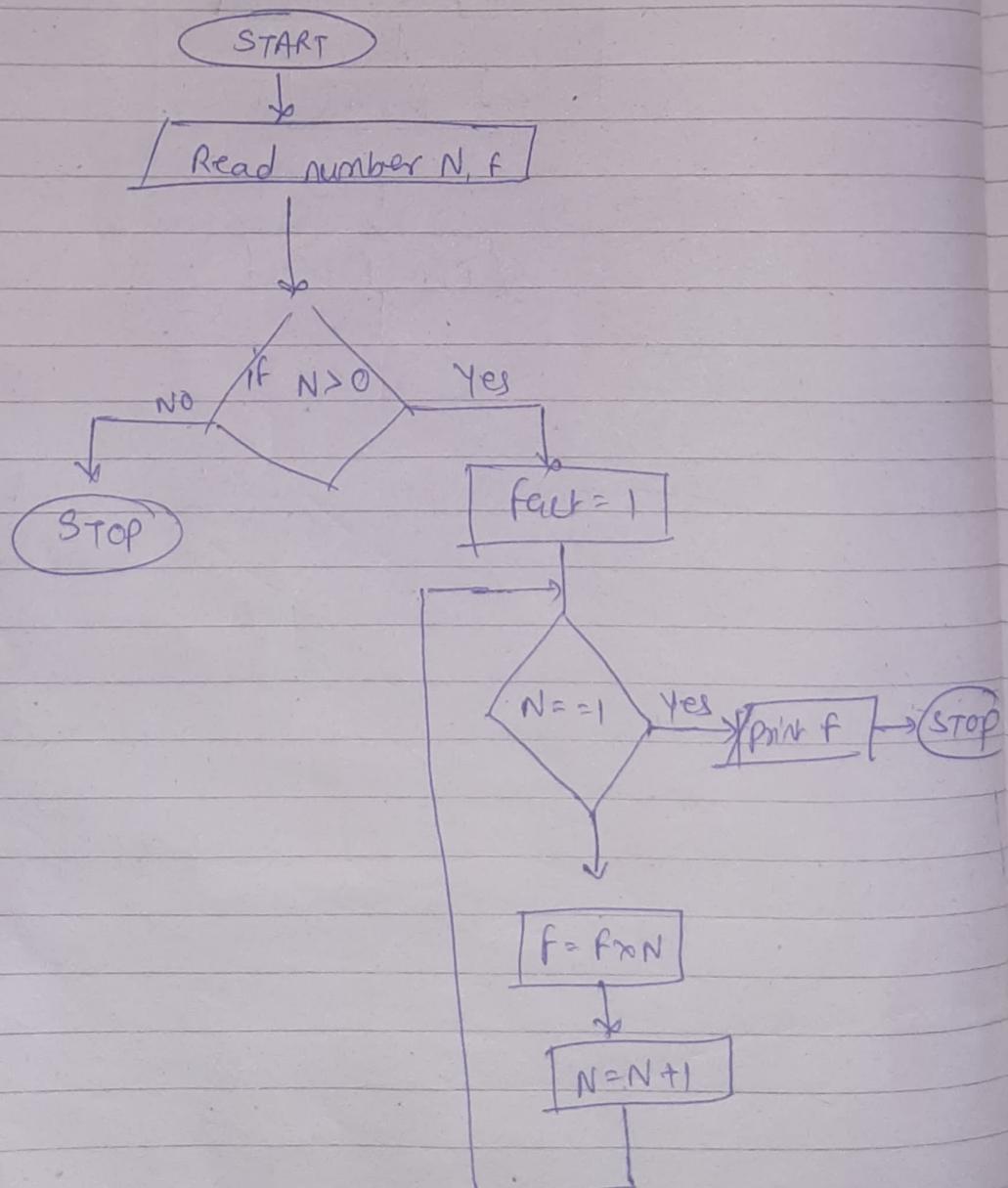
2 : Read number N, f .

3 : Check condition ($n=1$) is true or not
if it false then,

$$f = N \times \text{factorial}(n-1)$$

4 : print f

5 : STOP.



⑥ Write a Java program to find whether given number is Leap year or NOT?

Algo ->

START + !

Step 1 : START

2 : Read the number N

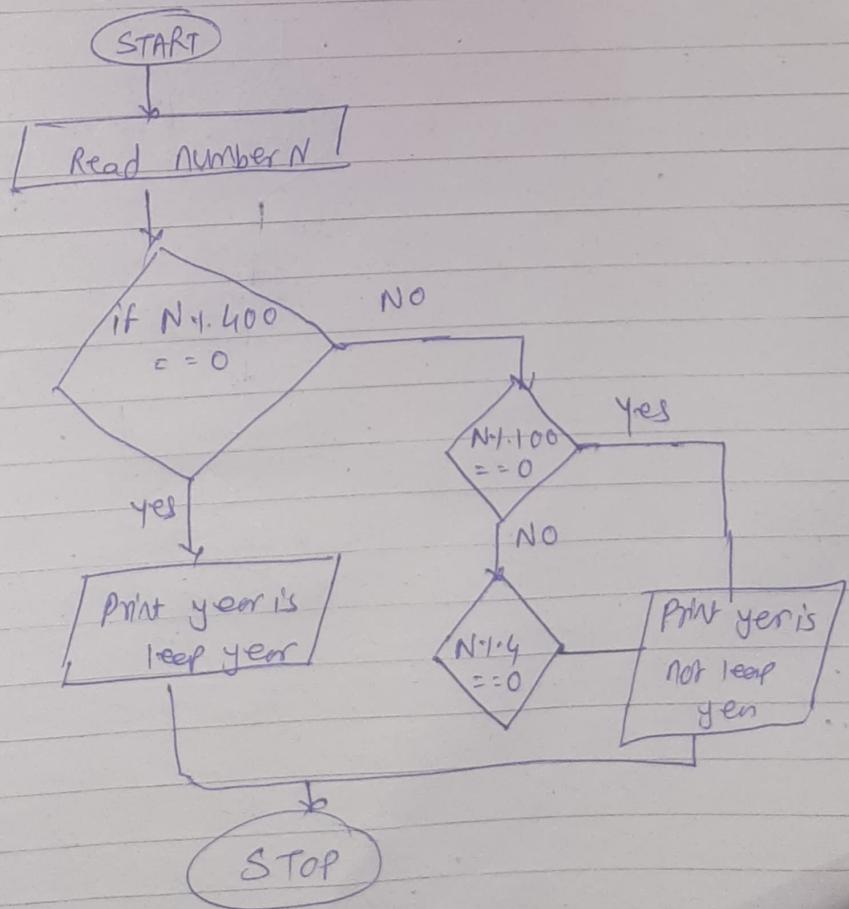
3 : if year mod 400 is 0, print the year
is leap year

4 : if year mod 100 is 0, print it is not
leap year

5 : if year mod 4 is 0, print year is leap

6 : ELSE print the year is not a leap year

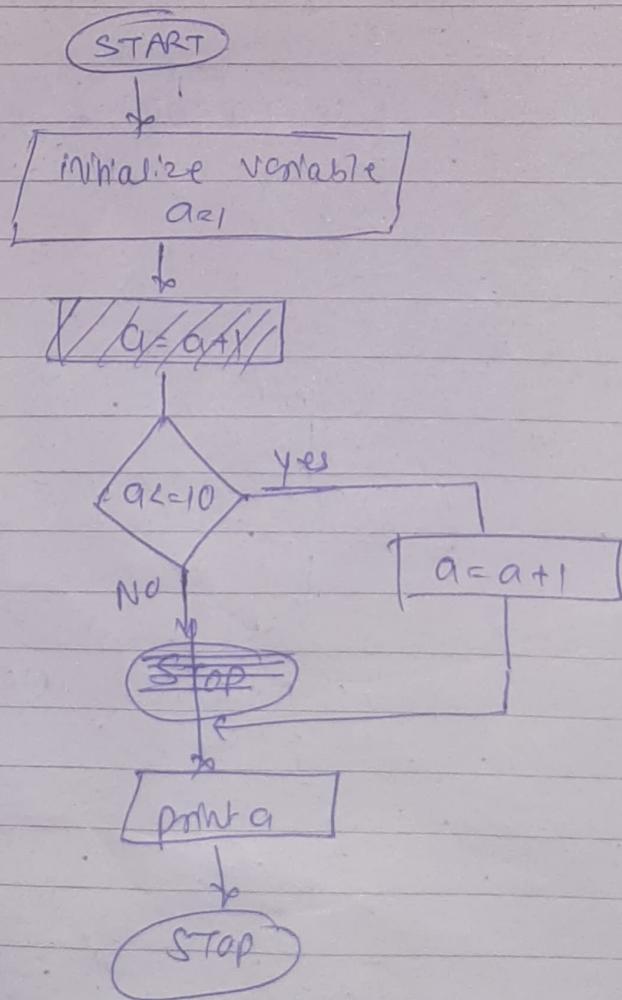
7 : STOP.



⑦ Write a Java program to print 1 to 10 without using loop?

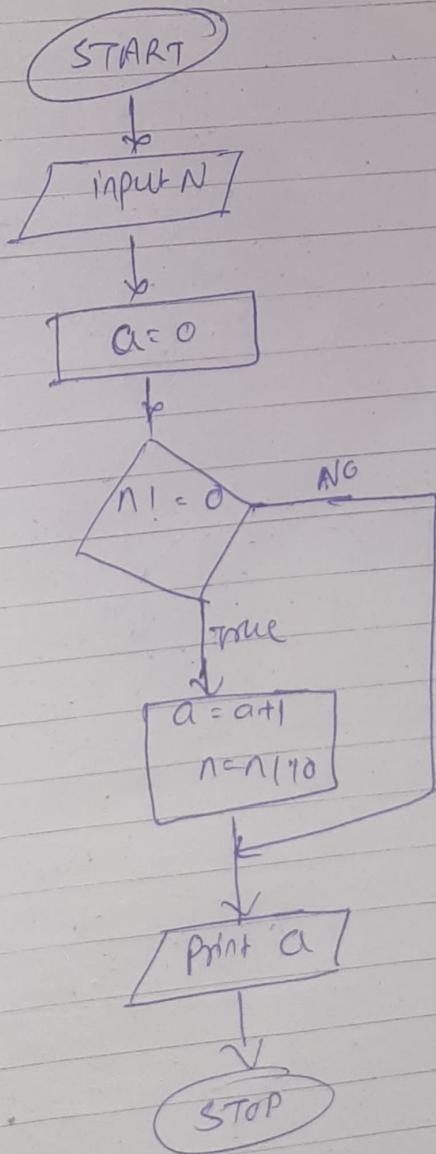
Algo

- 1 : START
- 2 : initialize variable $a=1$
- 3 : Increment a to 1
 $a=a+1$
- 4 : check ~~$a \leq 10$~~ $a < 10$
if yes a is less than 10 go to step 3
if a greater then print a.
- 5 : STOP



⑧ To print given number

- Algo
- 1 : START
 - 2 : Read number - N
 - 3 : ~~Set~~ initialise $a=0$
 - 4 : checking the condition ($n \neq 0$) if it is true then statement ($a = a + 1 \rightarrow n = n / 10$) is executed.
 - 5 : If condition ($n \neq 0$) is wrong then print value of a
 - 6 : end of



⑨ print all the factors of given number.

Algo - Step 1 : START

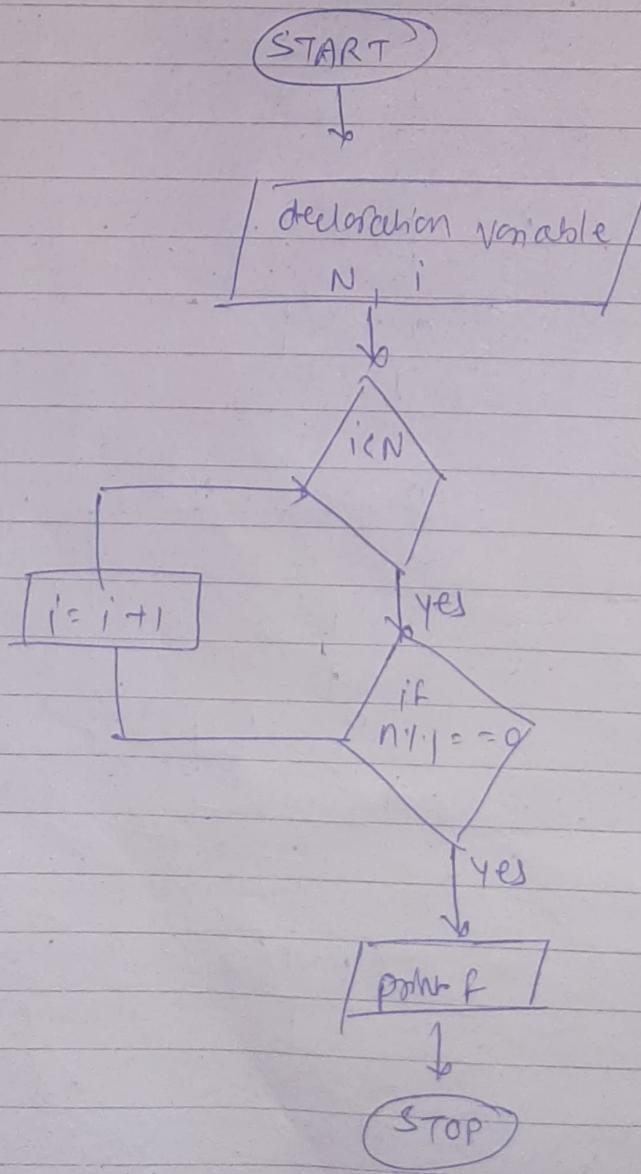
2 : Initialise & declare Variable N, i

3 : Checking condition ($i \leq N$)

4 : If statement true check next condition
($N \% i == 0$)

5 : Print factor

6 : STOP



⑩ Sum of digit of a given number

Algo

Step 1 : START

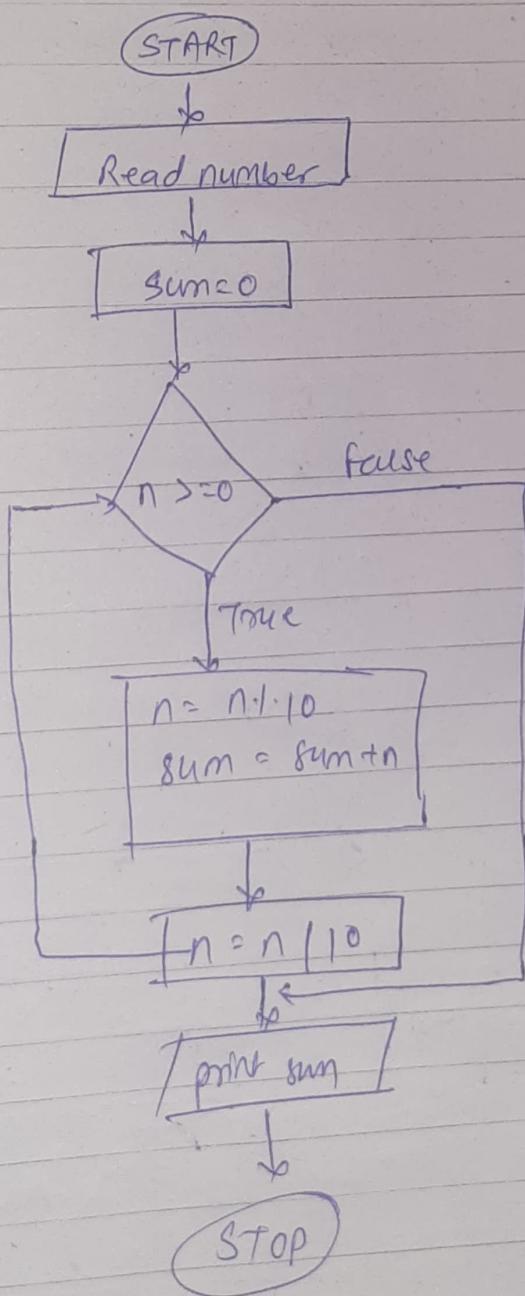
2 : Read number from user

3 : get the modulus / remainder of number.

4 : Sum the remainder of number

5 : Divide the number by 10.

6 : Repeat the step 2 while number is greater than 0.



⑪ Find smallest of 3 numbers?

Algo

Step 1 : START

2 : Read three numbers a, b, c

3 : Check the condition

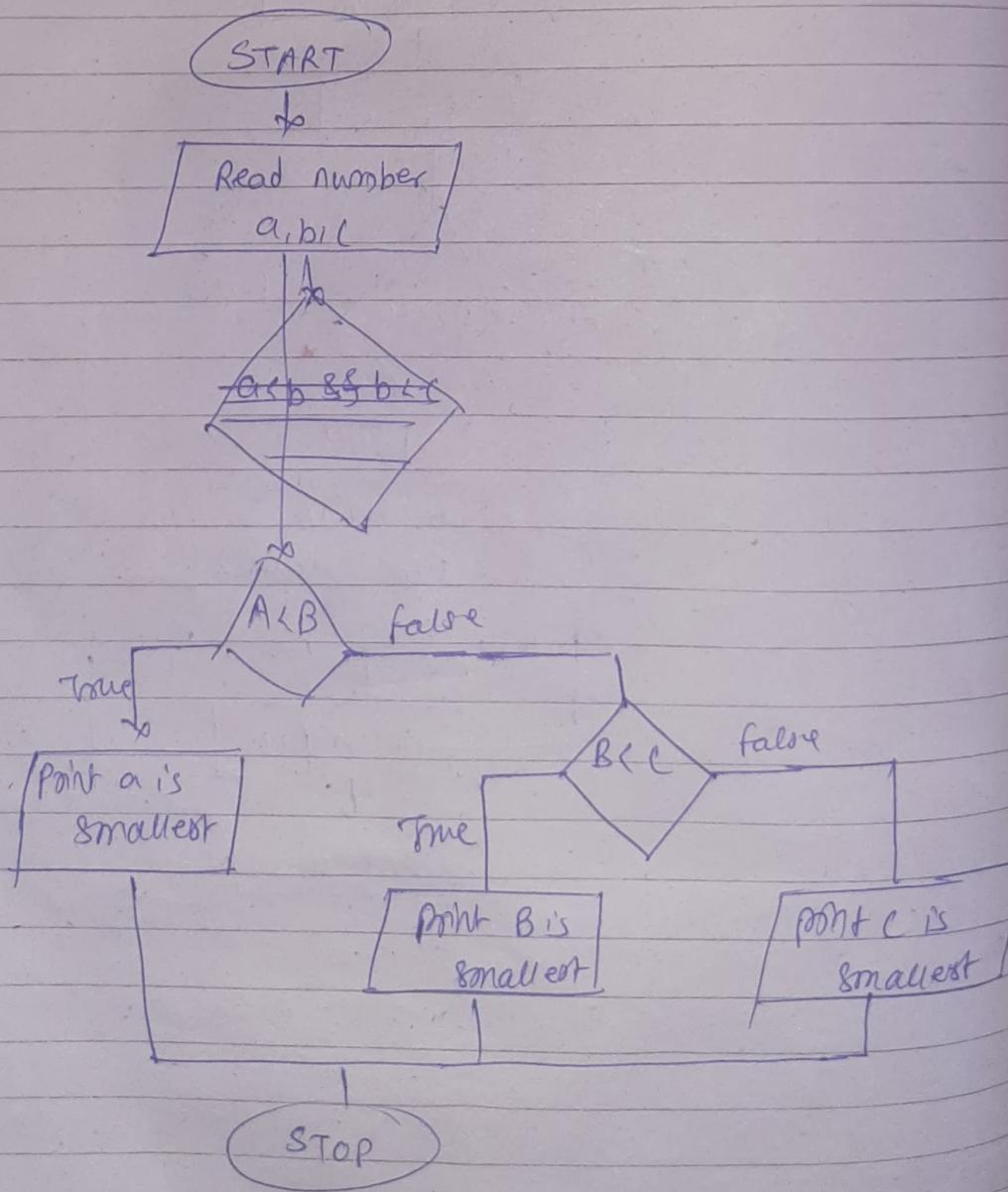
$a < b \& b < c$

4 : If the condition is true then, go to Step 7
a is smallest. else go to step 5

5 : Check if b is less than c

6 : if $b < c$ is true then b is smallest
else c is smallest

7 : STOP.



⑫ add two numbers without using the arithmetic operators in java

Step 1 : START

2 : enter two number

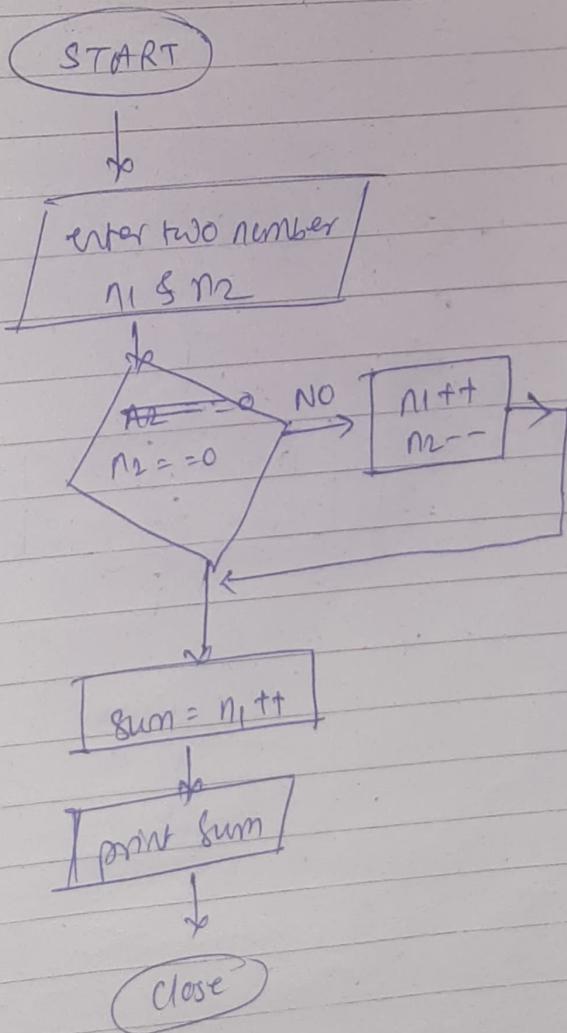
3 : check condition ($n_1 \neq 0$)

4 : if it is wrong then make n_1++ n_2--

5 : check condition is ~~true~~ true then
sum = n_1++

6 : print sum

7 : STOP



(15)

program to reverse the given number

Algo

Step 1 :- START

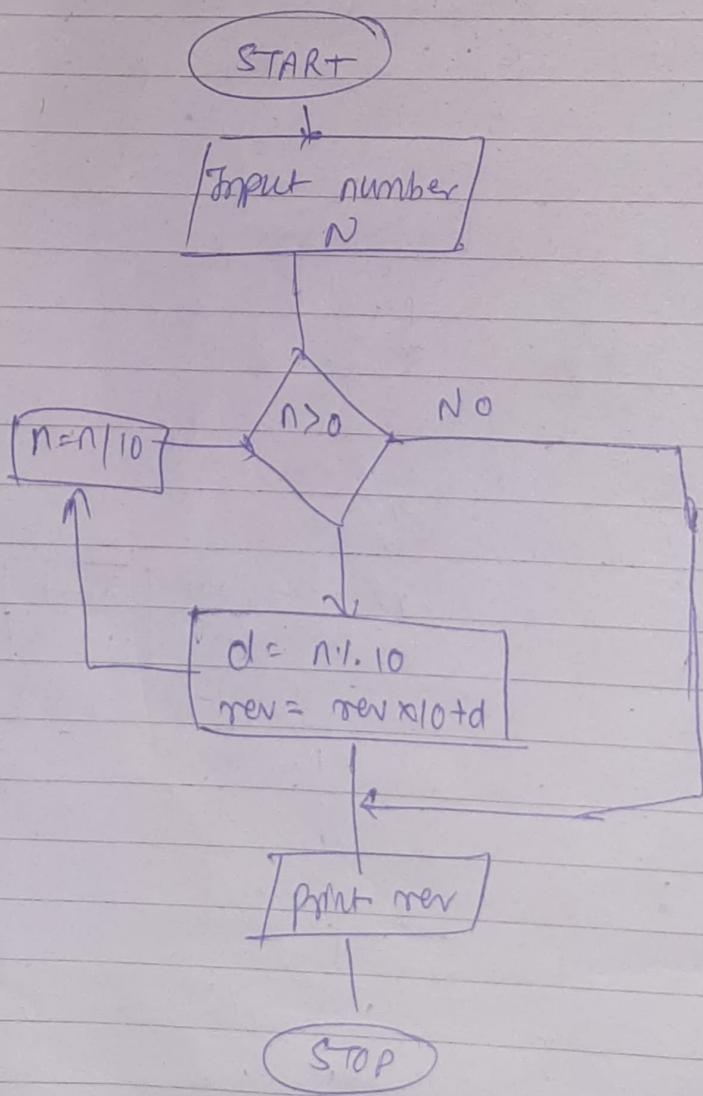
2 : Read number N.

3 : Condition ($n > 0$) if it is yes then step execute

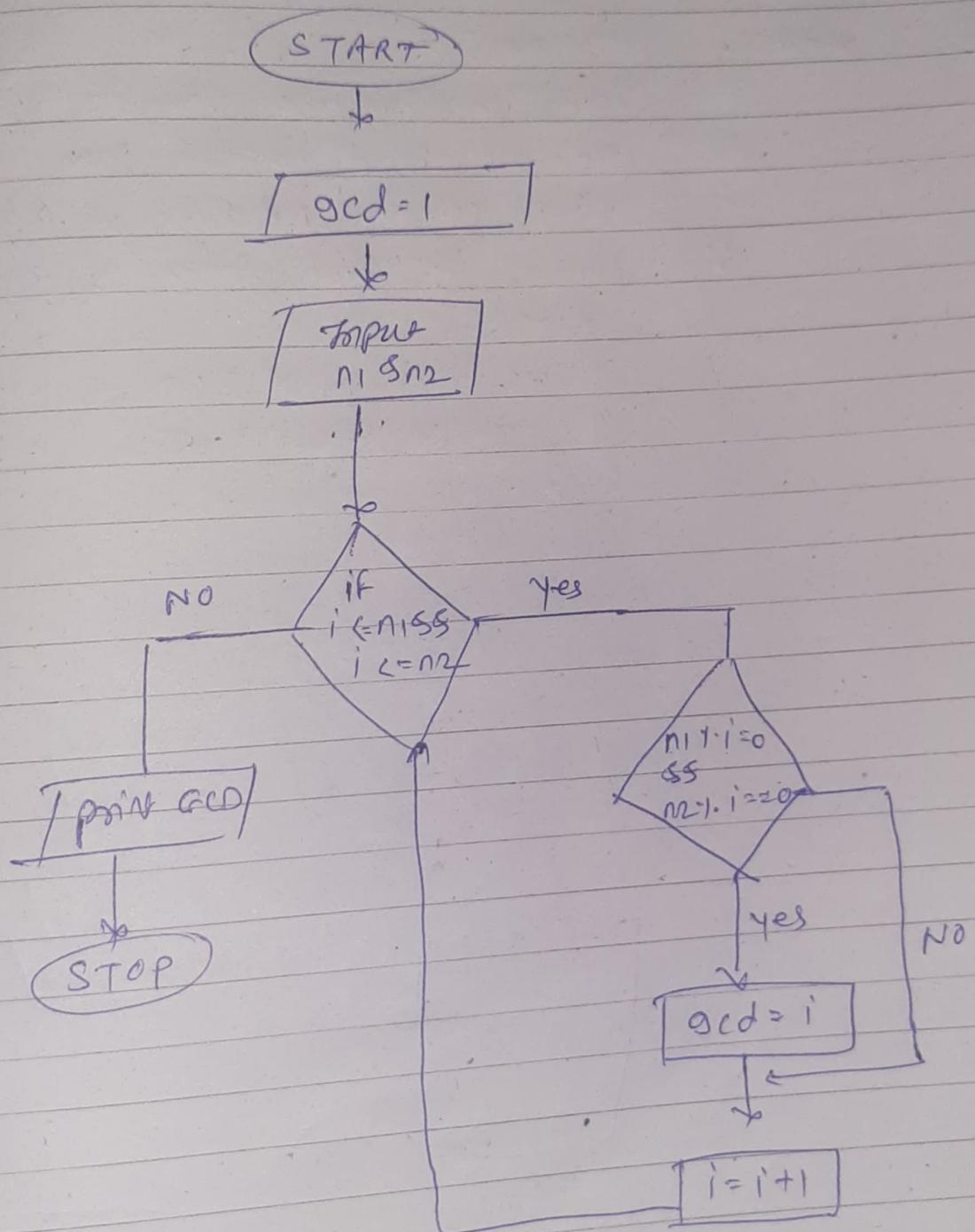
4 : Repeat the step till condition getting wrong.

5 : Print reverse number

6 : STOP



⑯ find GCD of two given number



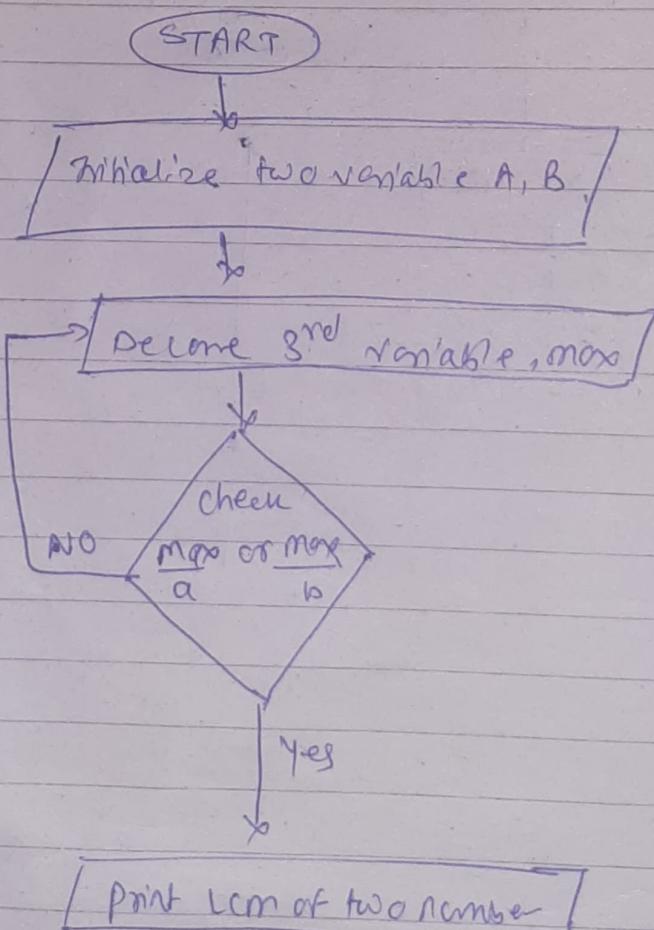
15

Write a Java program to Lcm of Two given number

Algo

Step 1 : START

- 2 : Initialize the two Variable A & B.
- 3 : Declare third variable Max
- 4 : store common multiple of A & B in max
- 5 : check the value max is divisible by A or B.
- 6 : If yes then print Lcm of two number
- 7 : If no go to step 5.
- 8 : STOP



⑯ Check palindrome or not.

Algo Step 1 : START

2 : declare variable N

3 : Initialize S=0, a=N

4 : While (n>0)

5 : rem = n%10

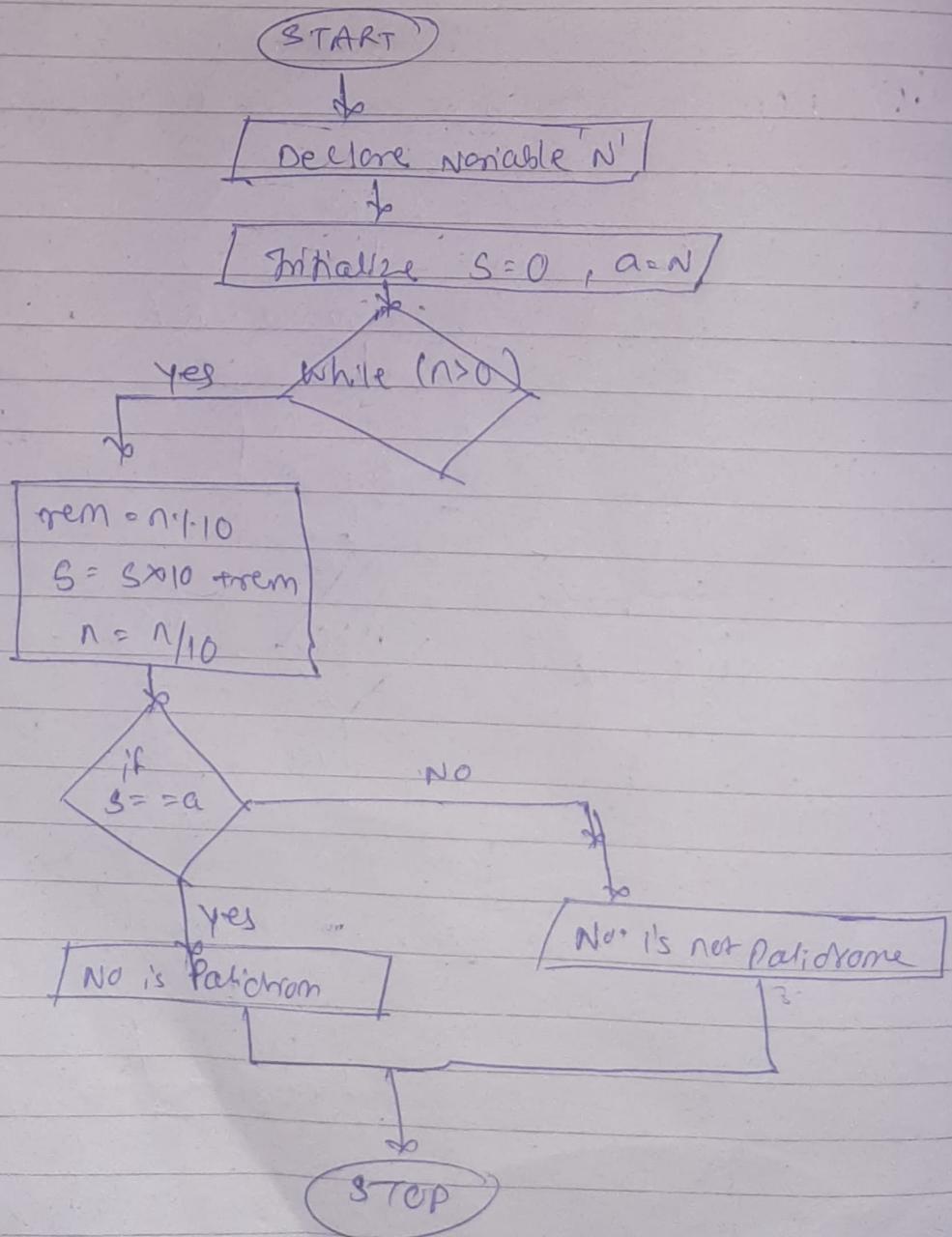
S = S*10 + rem

n = n/10

6 : if (S == a)

7 : print "it is a palindrome" else "it is not palindrome"

8 : STOP



Q12

To print even Number series 2 4 6 8 10 12 14 16

