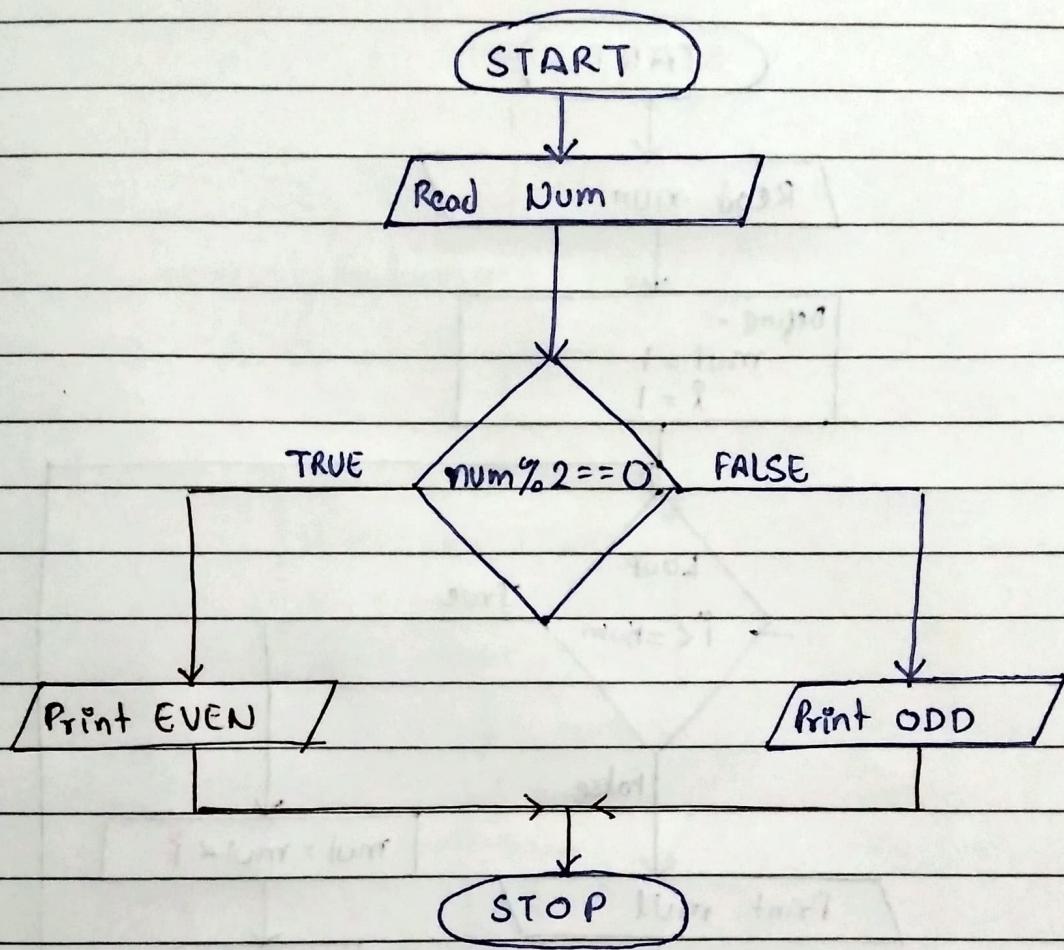


Assignment 1

Program 1:

Check if given number is even or odd.



Procedure

Step 1: Read the input Num.

Step 2: Check the condition $\text{num} \% 2 == 0$.

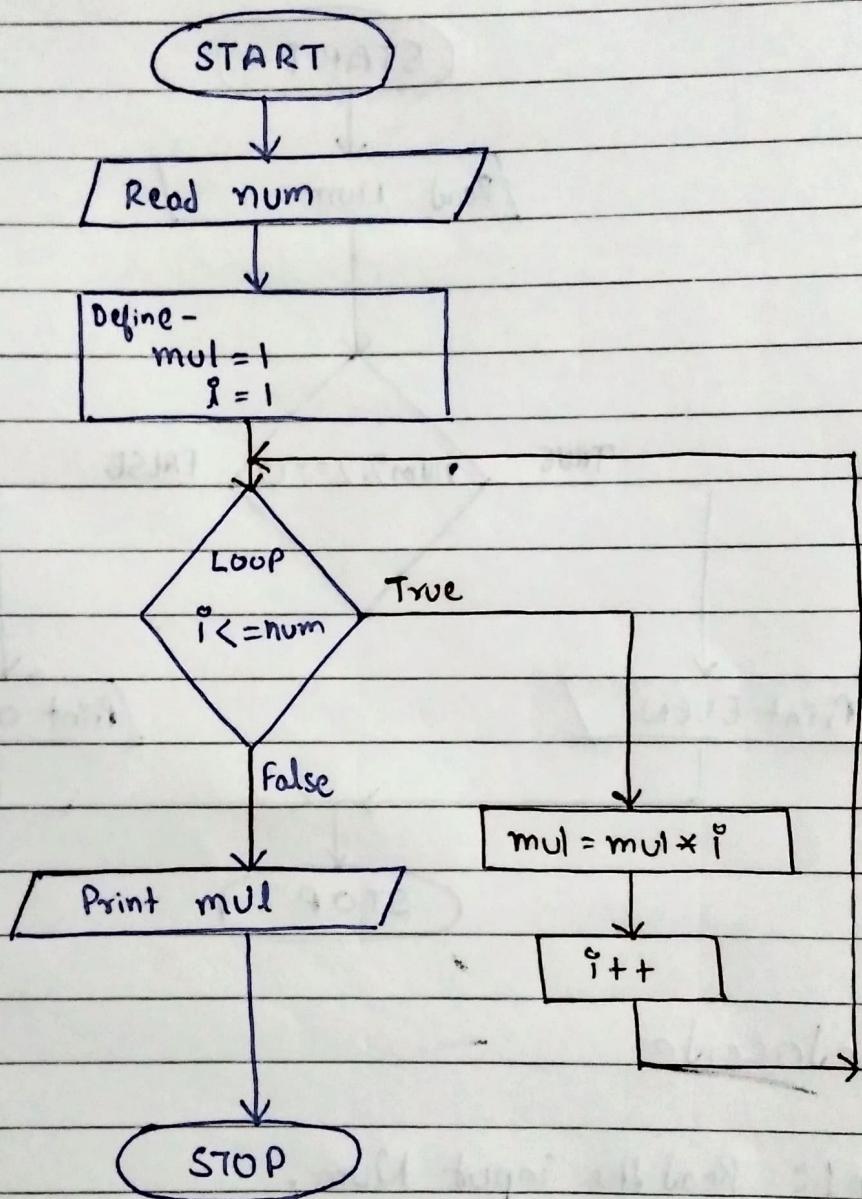
Step 3: If condition is true print EVEN.

Step 4: If condition is false print ODD.

Assignment 1

Program 2:

Program to find factorial of given number.



Pseudocode:

Step 1 :- Read num

Step 2 :- Define mul = 1, i = 1

Step 3 :- Condition $\rightarrow i \leq num$

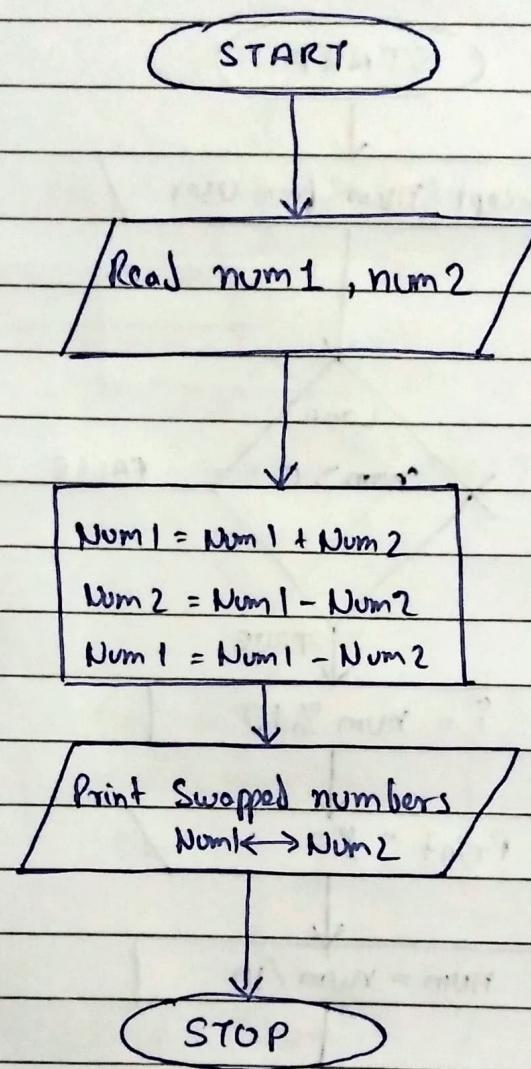
Step 4 :- Condition $\rightarrow true \rightarrow mul = mul * i \rightarrow i++$

Step 5 :- Condition $\rightarrow false \rightarrow$ Print mul

Assignment 1

Program 4:

SWAP two numbers WITHOUT using 3rd no.



Pseudocode:

Step 1 - Read num1, num2

Step 2 - $\text{Num1} = \text{Num1} + \text{Num2}$

$\text{Num2} = \text{Num1} - \text{Num2}$

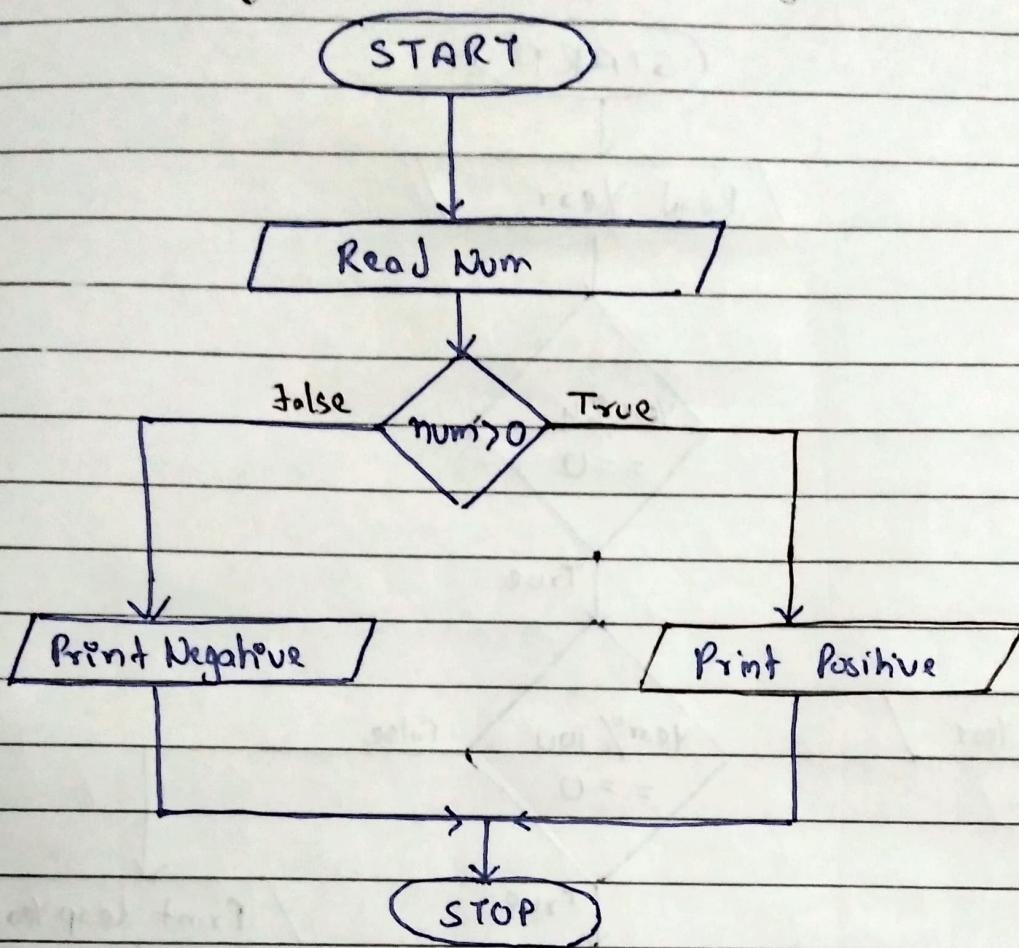
$\text{Num1} = \text{Num1} - \text{Num2}$

Step 3 - Print swap. numbers

Assignment 1

Program 5:

Identify number is positive or negative.



Pseudo code

Step 1: Read num

Step 2: Condition $num > 0$

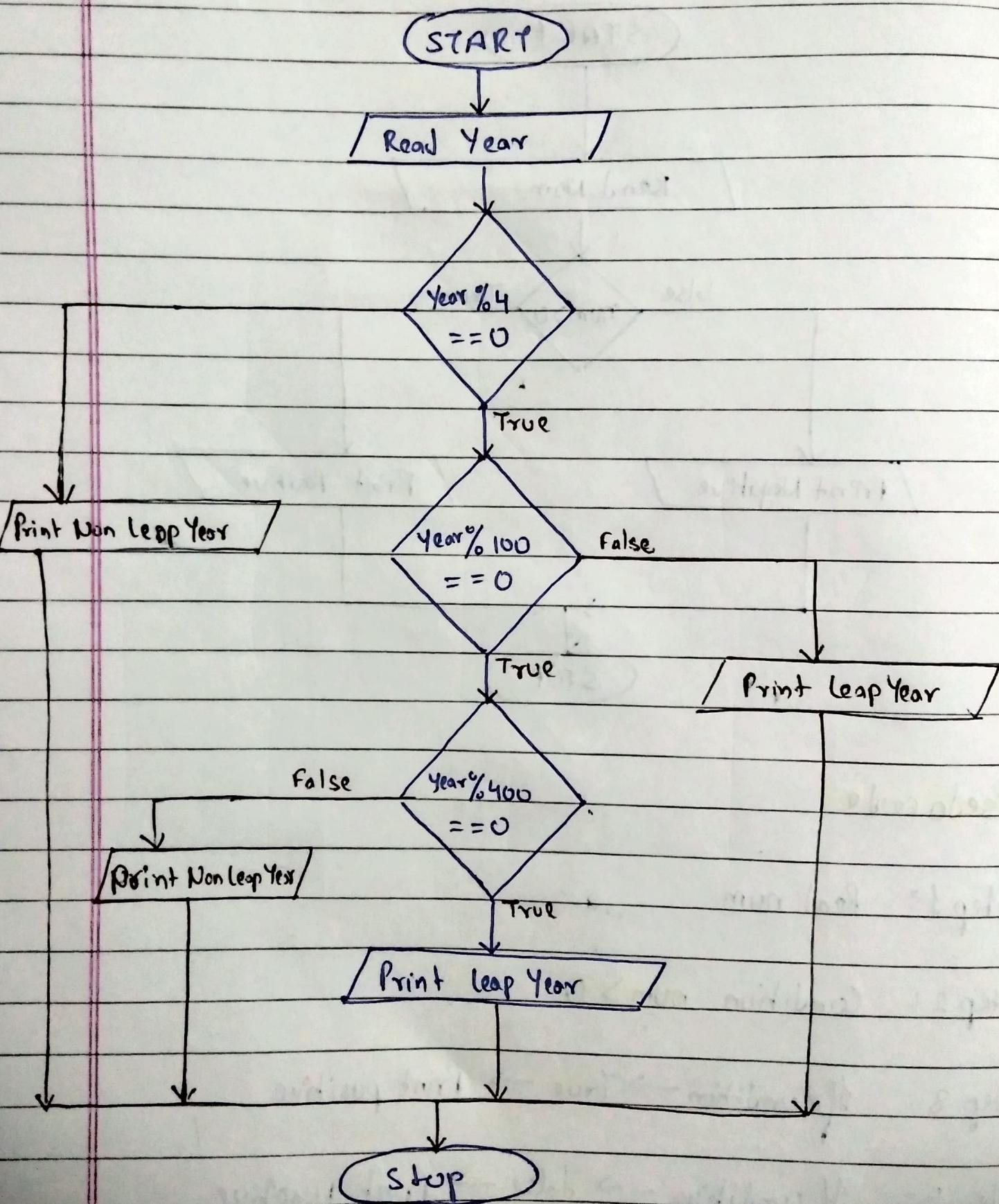
Step 3: If condition \rightarrow True \rightarrow Print positive

Step 4: If condition \rightarrow False \rightarrow Print Negative

Assignment 1

Program 6:

Given no. is leap year or not.



Pseudocode 6 :

Step 1 : Read Year from user

Step 2 : $\text{Year} \% 4 == 0$; if true move to step 3 else
print non leap year

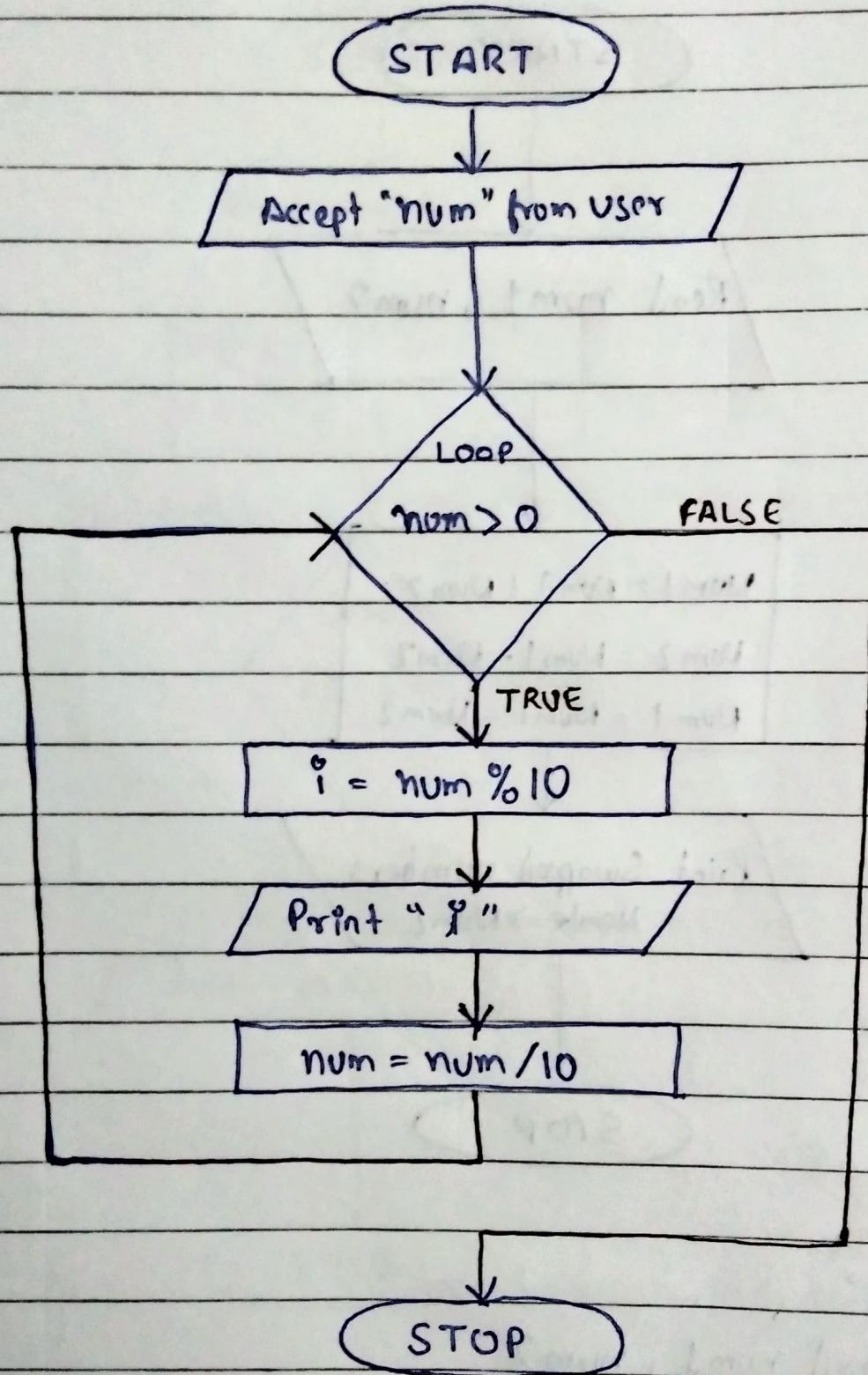
Step 3 : $\text{Year} \% 100 == 0$; if true move to step 4
else print LEAP YEAR.

Step 4 : $\text{Year} \% 400 == 0$; if true print LEAP YEAR
else print NON LEAP YEAR.

Assignment 1

Program 8:

To print digit of a given number.



Pseudocode 08:

Step 1: Read num from user

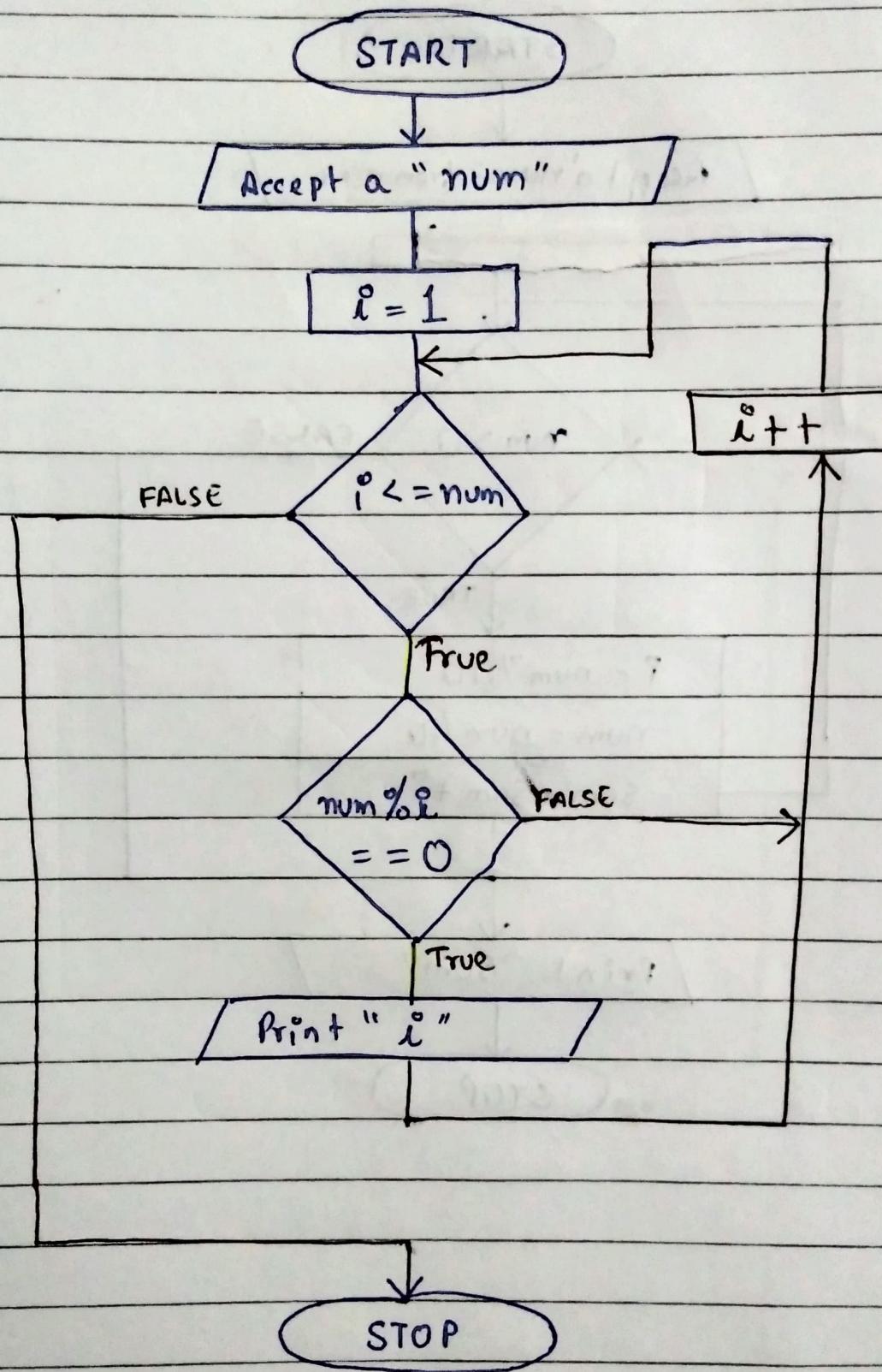
Step 2: If $\text{num} > 0$ Then $i = \text{num \% } 10 \rightarrow \text{Print } i$]
 $\text{num} = \text{num / } 10$ repeat step

else when condition is false stop program.

Assignment 1

Program 9:

To find factors of given number.



Pseudocode Q9:

Step 1: Read a num from user

Step 2: Declare $i = 1$

Step 3: if $i \leq \text{num}$ then move to step 4 else
end the program

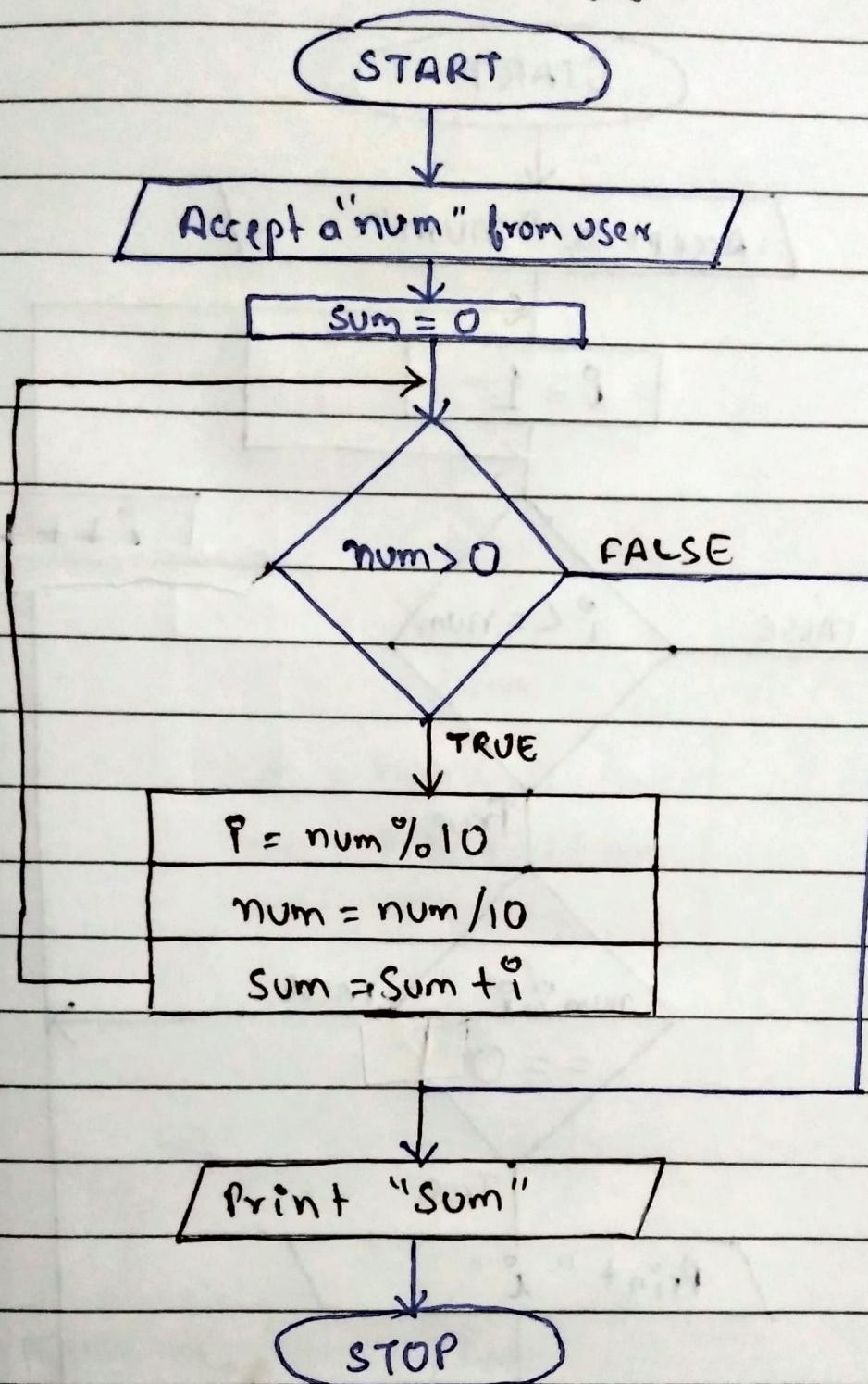
Step 4: If $\text{num} \% i == 0$ Then print i and it repeat step 3
else go to step 5

Step 5: Increment i by 1 and repeat step 3.

Assignment 1

Program 10:

To find sum of digits of given number.



Pseudocode 10:

Step 1: Read num from user

Step 2: Declare Sum = 0;

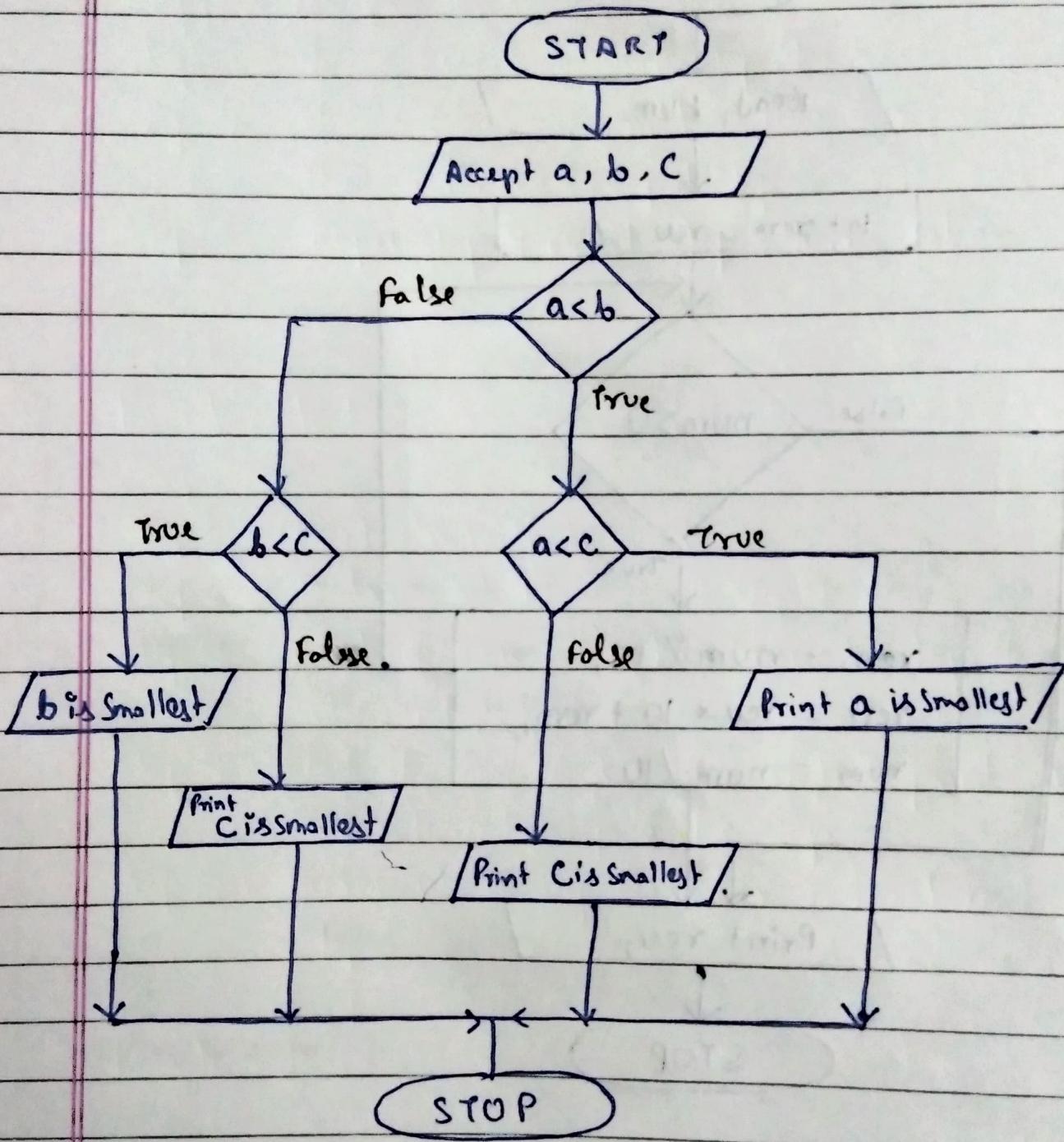
Step 3 : If num > 0 move to step 4 else print "Sum"

Step 4: i = num % 10 -> Sum = Sum + i -> num = num / 10 Then
repeat step 3 .

Assignment 1

Program 11:

Smallest of 3 numbers (a, b, c)



Pseudocode 11:

Step 1: Accept a, b, c from user

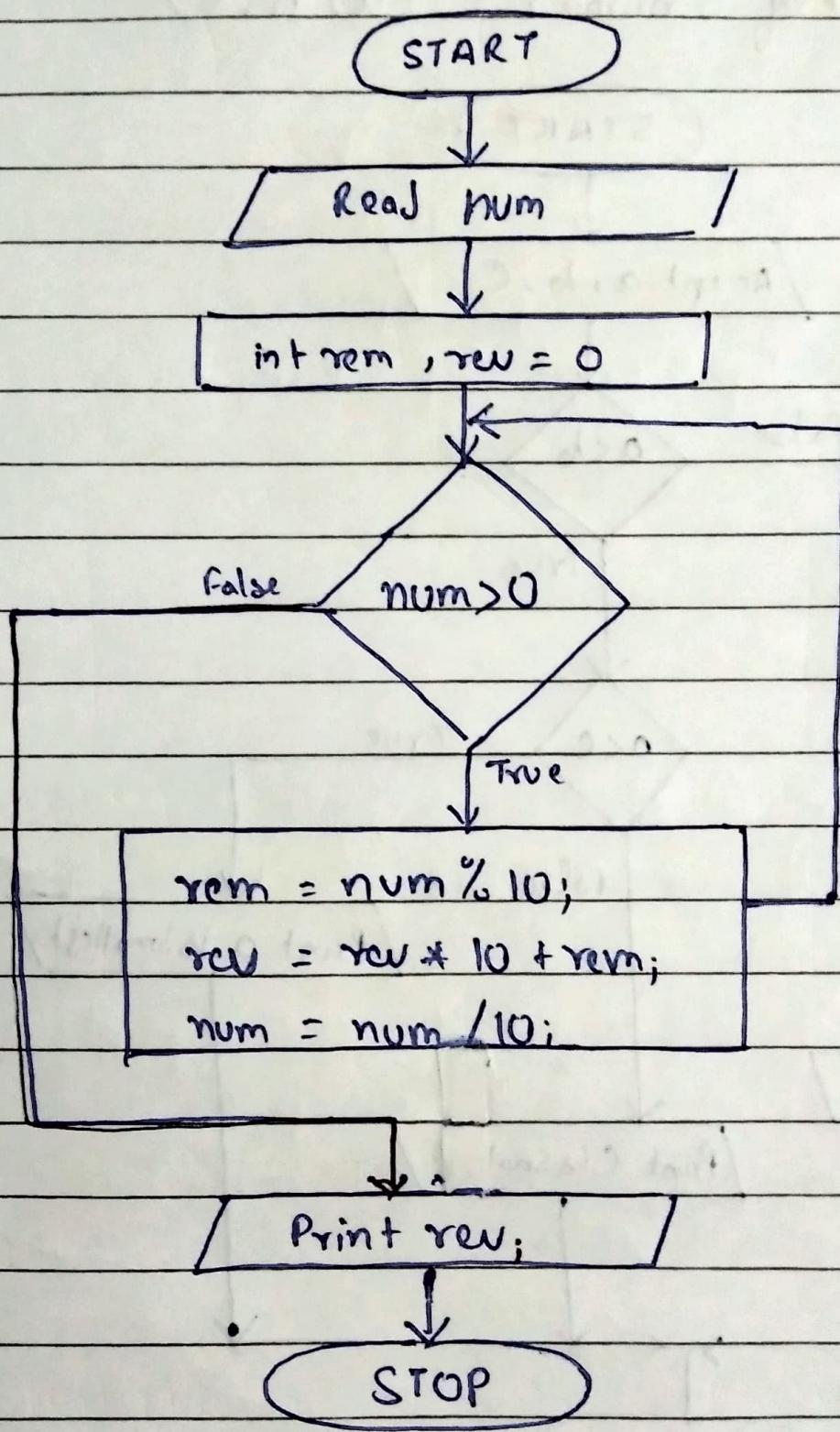
Step 2: Compair if $a < b$ then move to step 3 else to Step 4

Step 3: Compair if $a < c$ then print a is smallest
else print c is smallest.

Step 4: Compair if $b < c$ then print b is smallest
else print c is smallest.

Program 13°

To print given number in reverse.



Pseudocode 13:

Step 1: Read num

Step 2: Declare rem , rev = 0

Step 3: Check if num > 0

Step 4: True -> rem = num % 10

Step 5: To reverse the number -> ~~num~~ rev + 10 + rem = rev

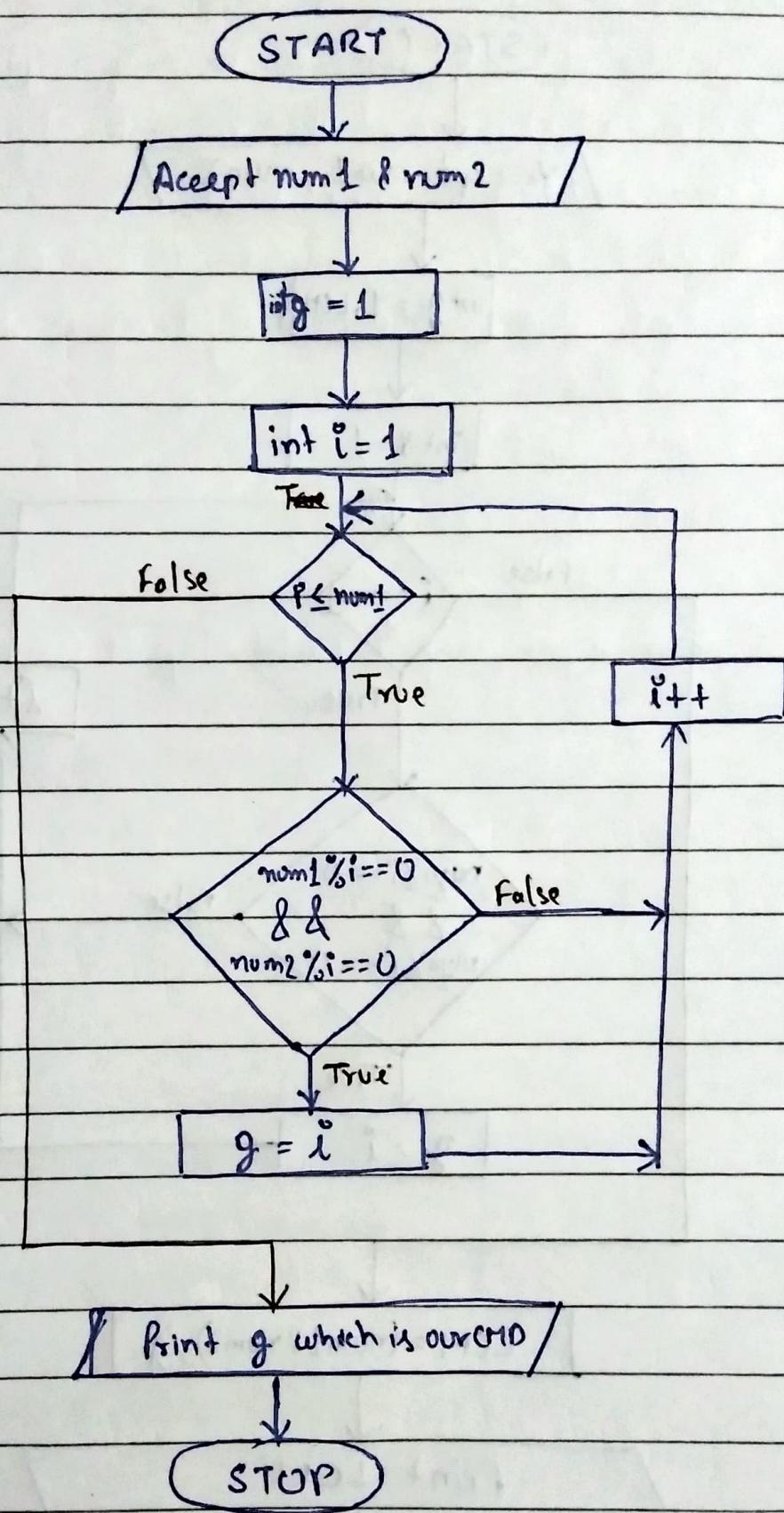
Step 6: num / 10 = num repeat until num > 0 turn false

Step 7: Print rev

Assignment 1

Programme 14

Find GCD of given two numbers.



Pseudocode 14:

Step 1: Accept num1, num2

Step 2: Declare int g=1, int i=1

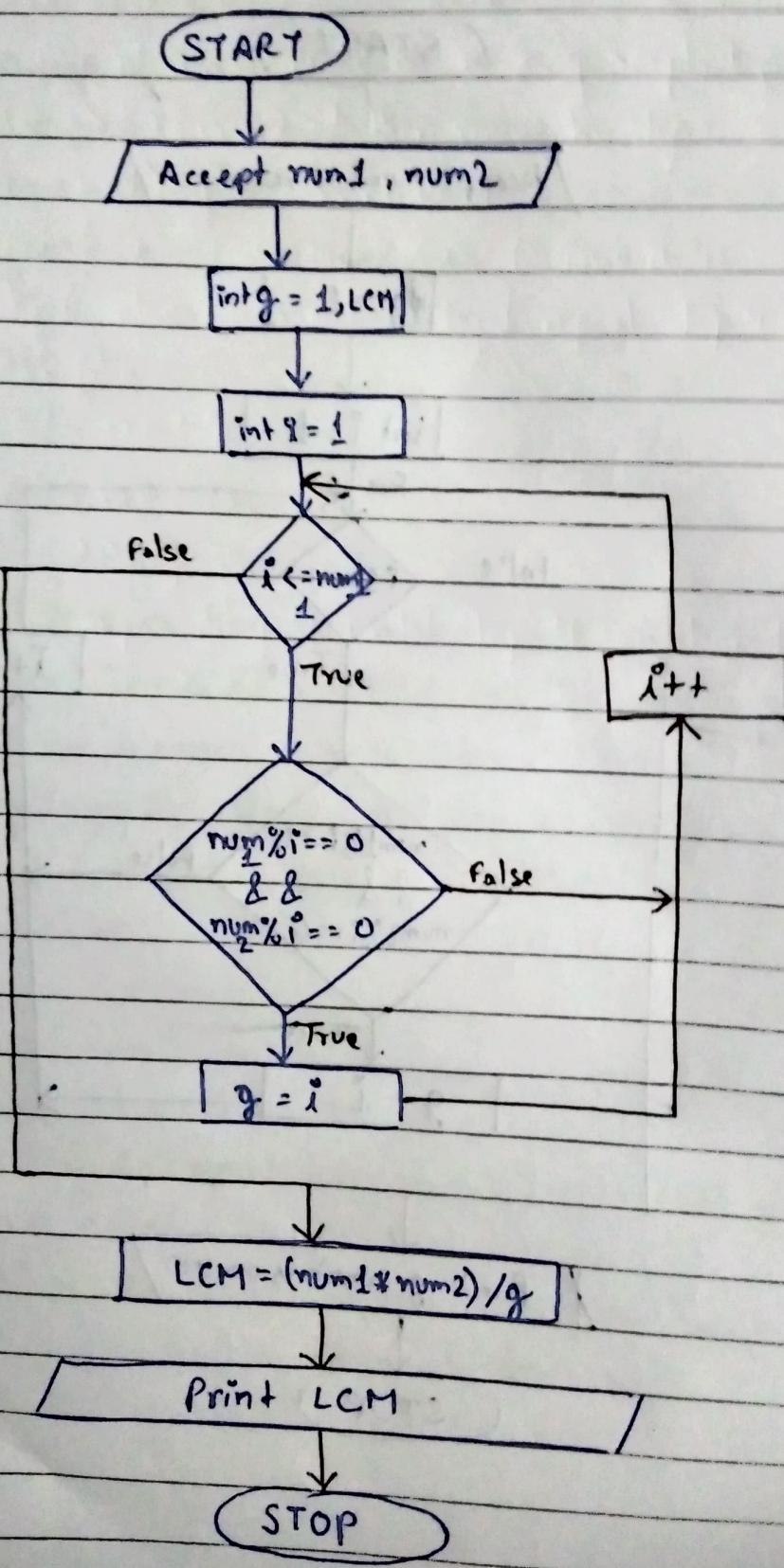
Step 3: If $i \leq num1$ then move to step 4 else print g

Step 4: If $num1 \% i == 0 \text{ and } num2 \% i == 0$ then assign $g = i$
~~else~~ and increment i ~~else~~ increment i.

Step 5: keep repeating step 4 until step 3 becomes false.

Programme 15

Find LCM of two given numbers



Pseudocode 15:

Step 1: Accept num1 , num2

Step 2: Declare int g = 1 , i = 1 , LCM;

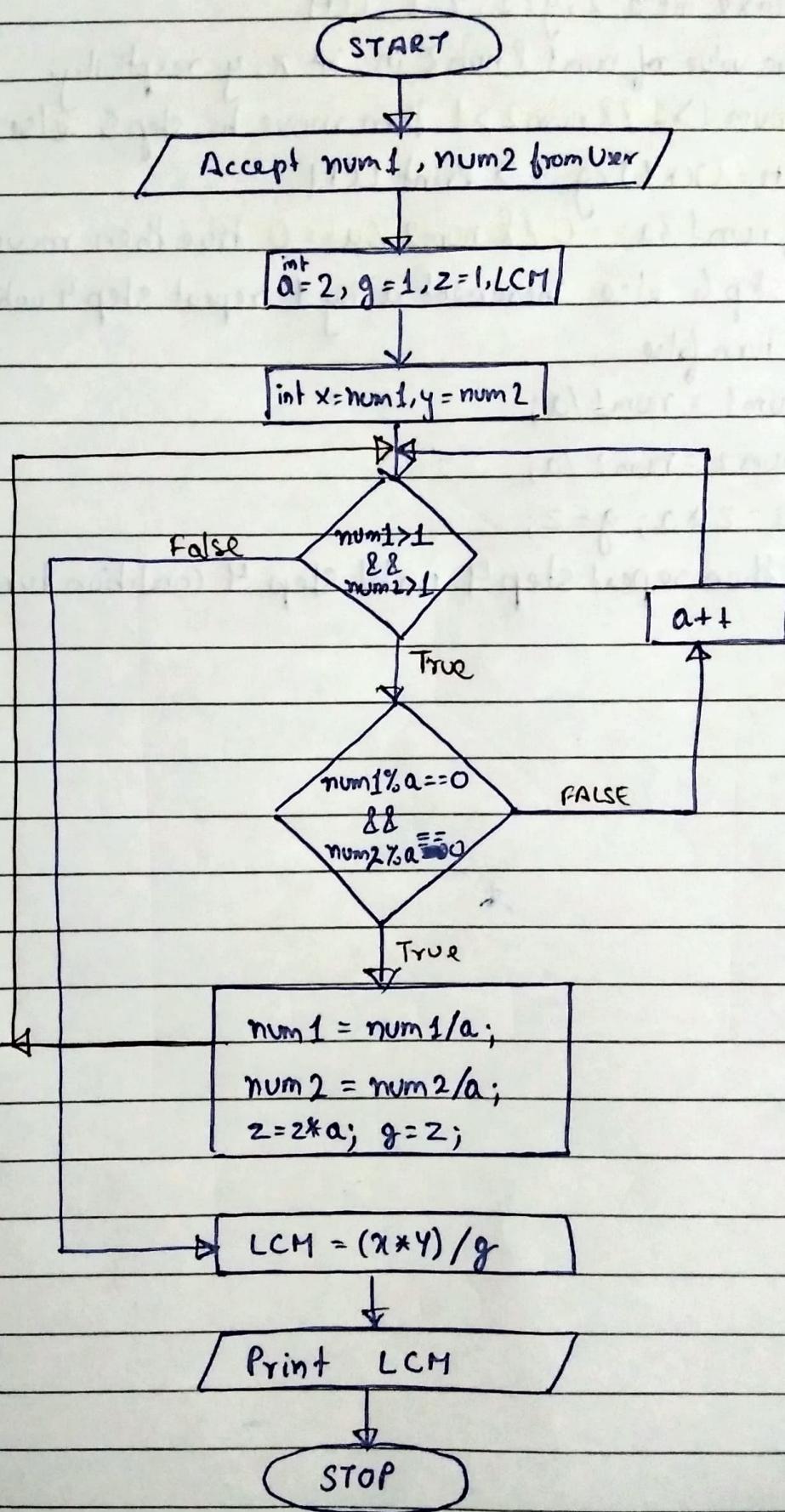
Step 3: check if $i \leq num1$ true move to step 4 else print
move to step

Step 4: check if $num \% i == 0$ & $num \% i == 0$ true move to $g = i$ &
step 3 after incrementing by 1 else i++

Step 5: Keep repeating step 3 & 4 until turn false

Programme 16:

Find LCM of two numbers using P.F



Programme 16:

Step 1: Accept num1, num2 from user

Step 2: Declare int a=2, g=1, z=1, LCM

Step 3: Store value of num1 & num2 in int x, y respectively.

Step 4: If num1 > 1 & num2 > 1 then move to step 5 else
 $LCM = (x * y) / g \rightarrow$ Print LCM

Step 5: If num1 % a == 0 & num2 % a == 0 true then move to step 6 else increment a by 1 repeat step 4 until it turn false

Step 6: num1 = num1 / a;

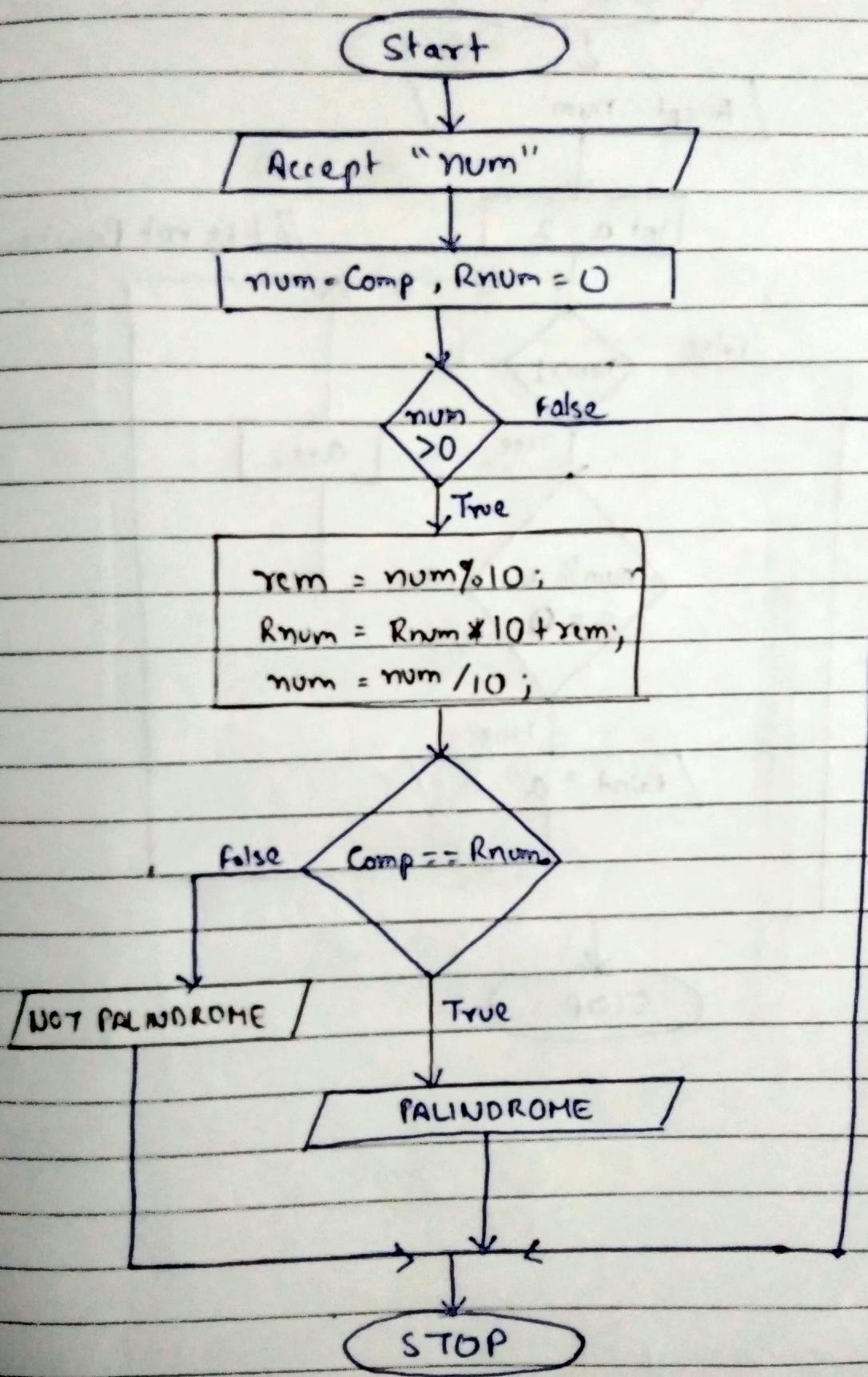
num2 = num2 / a;

z = z * a; g = z;

Then repeat Step 4 until Step 4 condition turn false.

Program 17:

Check the number is **palindrome** or NOT.



Pseudocode 17:

Step 1: Accept num from user

Step 2: Store num = Comp & declare Rnum = 0

Step 3: If num > 0 move to step 4 else stop program

Step 4: rem = num % 10; find reverse number from step 5
and reassign num = num / 10 and move to step 6

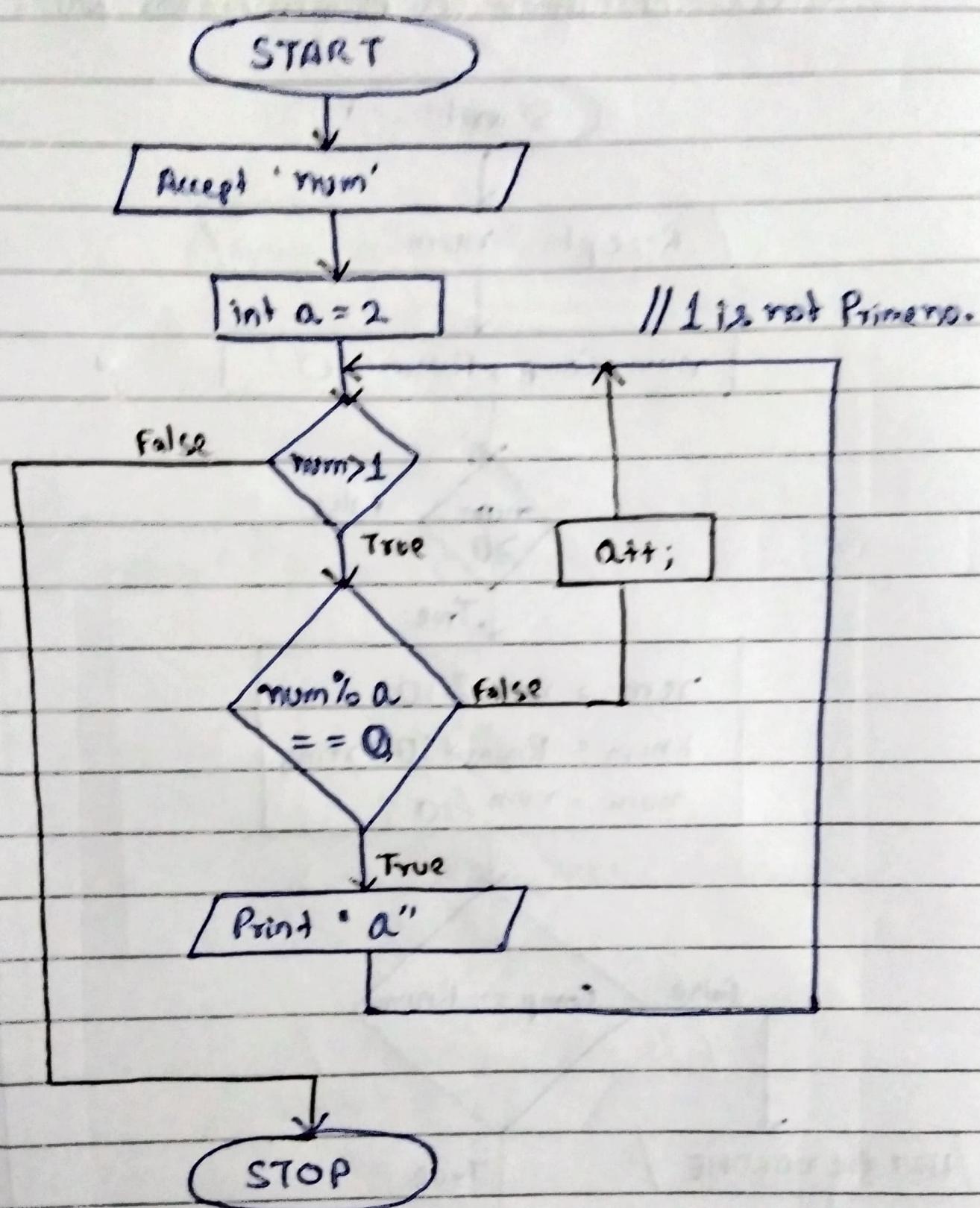
Step 5: Rnum = Rnum * 10 + rem ~~move to step 6~~

Step 6: If Comp = Rnum true number is Palindrome
else number is not Palindrome

Step 7: end programme

Program 18:

To find all the prime factor of No numbers.



Pseudocode 18:

Step 1: Read a num from user

Step 2: Declare int a = 2

Step 3: Check if num > 1 if true move to step 4
else end program

Step 4: Check if num % a == 0; if true print "a"
and return to step 3 else step 5.

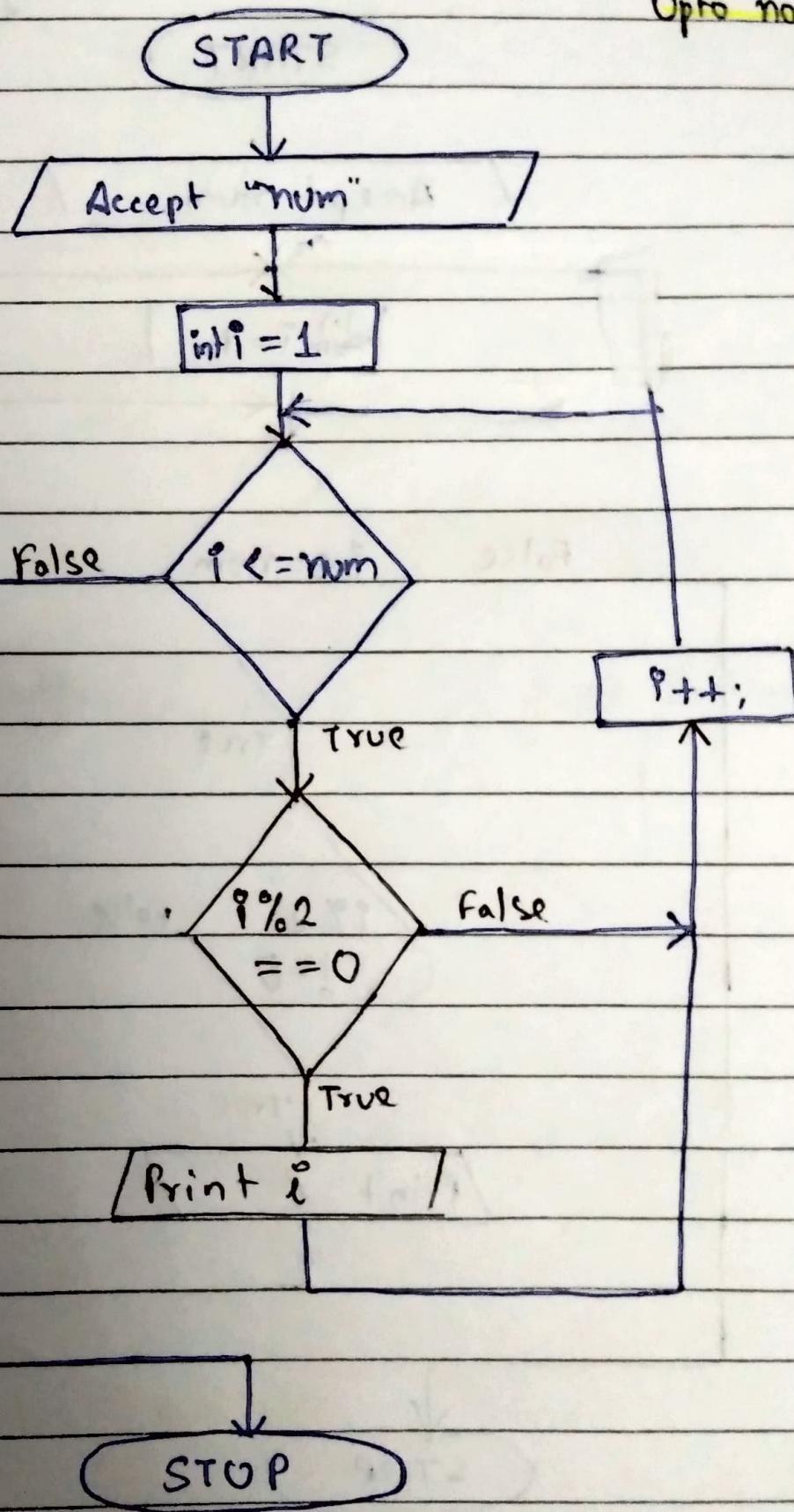
Step 5: increment a by 1 number and return to
step 3

Assignment

Program 19:

Print even number series like 2 4 6 8 ...

Upto no. provided



Pseudocode 19:

Step 1: Read a num from user

Step 2: Declare int i = 1

Step 3: if $i \leq \text{num}$ move to step 4

Step 4: if $i \% 2 == 0$; print i then increment i repeat step 3

else increment i repeat step 3

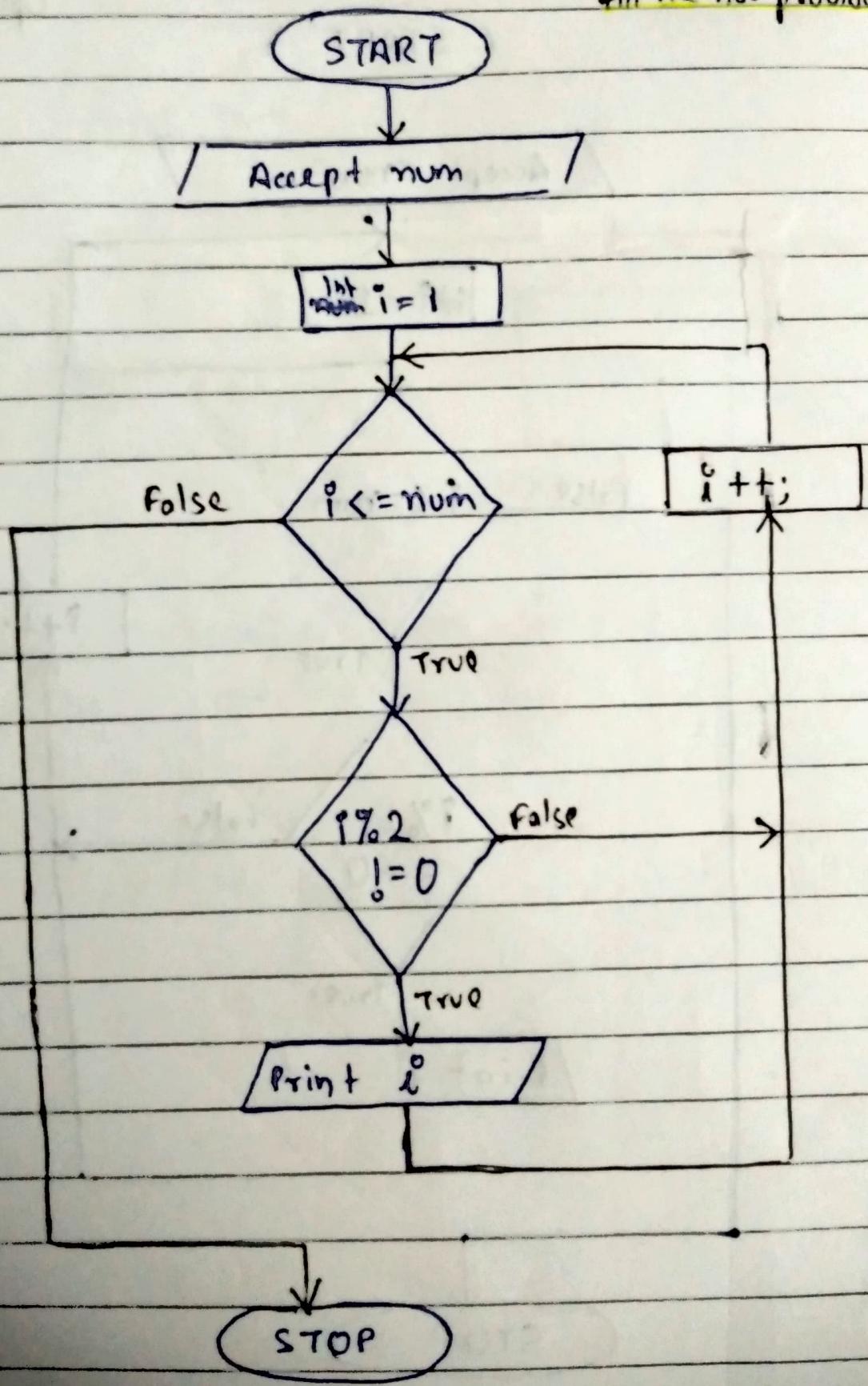
Step 5: Repeat step 4 until step 3 turns false.

Assignment

Program 20:

Print ODD number series like 1, 3, 5, 7....

till the no. provided.



Pseudocode 20 :

Step 1 : Accept num from user

Step 2 : Declare int i = 1

Step 3 : If $i \leq num$ move to step 4 else end

Step 4 : If $i \% 2 = 0$; print i and i++ returning to step 3
else increment i and return to step 3

Step 5 : Repeat step 4 until step 3 turns false