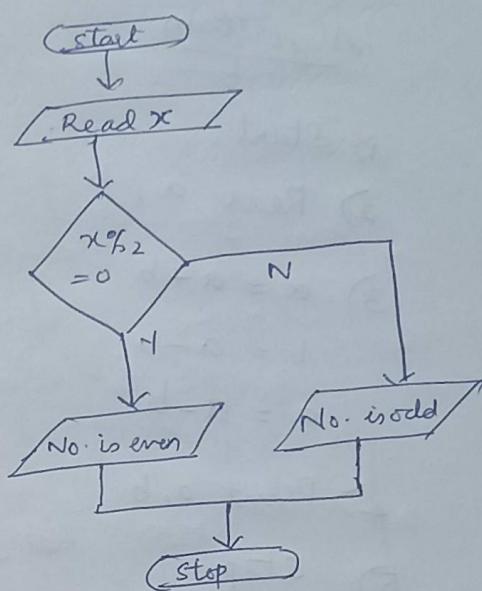


17 Odd or Even

Algorithm

- 1) Start
- 2) Input number, x
- 3) If $x \% 2 = 0$, ~~print the~~
Print no. is even ~~no is even~~
~~else print no is odd~~
~~else print no. is odd~~
4. Stop

Flow chart



2) Factorial

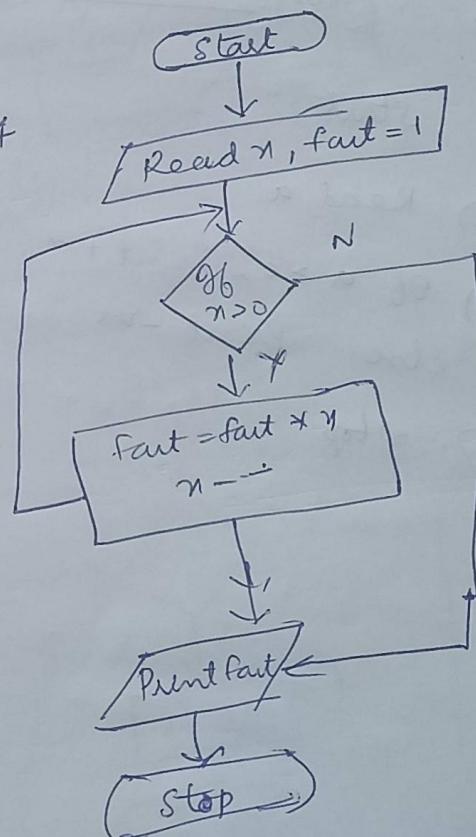
- 1) Start
- 2) Input number, x , $\text{Fact} = 1$
- 3) If $x > 0$, go to step 4
~~else goto step 5~~

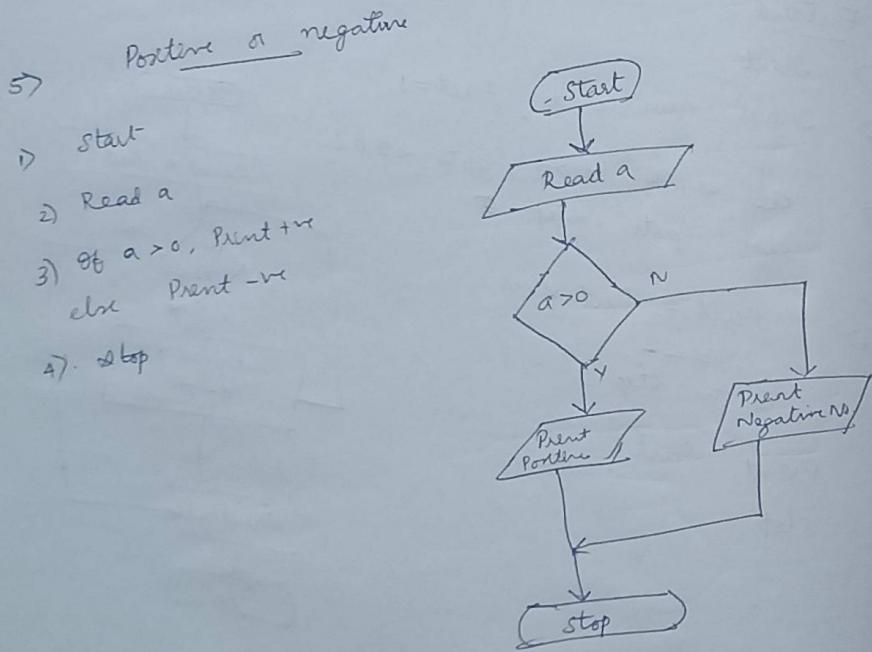
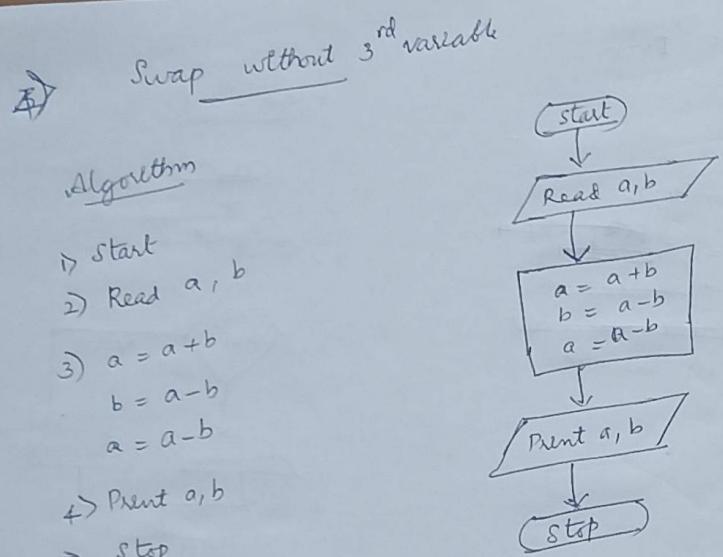
$$\text{fact} = \text{fact} * x$$

$x--$
Go to step 3

5 Print fact

6 Stop





6) Leap Year or Not

1. Start
 2. Read Year = x
 3. If $x \% 4 = 0$, go to step 4 else go to step 5
 4. If $x \% 100 = 0$, go to step 5
 5. If $x \% 400 = 0$, print not leap year
else print leap year
 6. stop

$$3. \text{ If } (x \% 4 = 0) \text{ OR } (x \% 100 \neq 0)$$

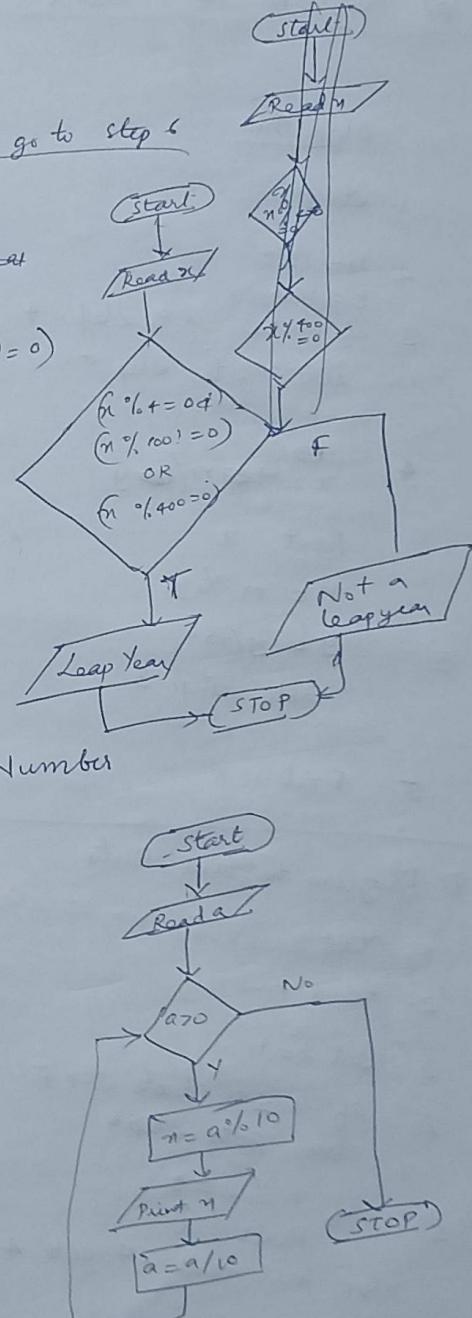
$$(x \% 400 = 0)$$
- Print Leap year
Print Not a Leap year

4. Stop

8) Program to print the Digits of a no

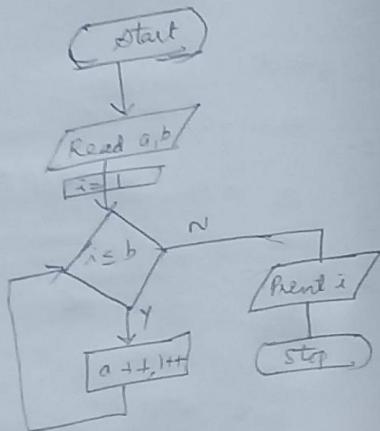
13) Program to Reverse a Number

1. Start
2. Read number a
3. If $a > 0$ goto step 4,
else goto step 7
4. $x = a \% 10$
5. Print x
6. $a = a / 10$, goto step 3
7. Stop



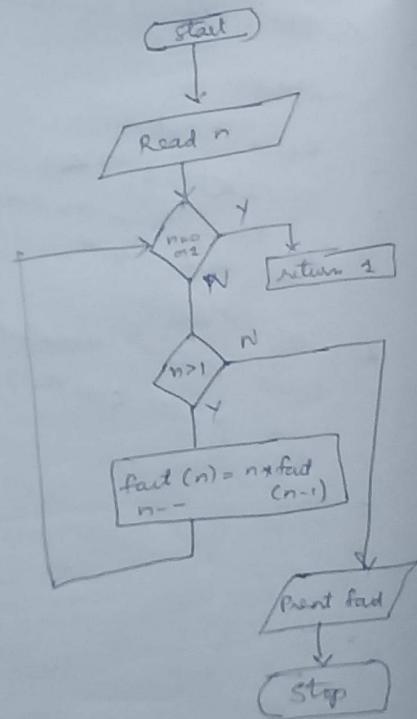
12) Addition without arithmetic operator

1. start
2. Read a, b
3. if $a < b$ go to 4
else goto 5
4. ~~same~~
 $a++, i++$
goto 3.
5. Print a
6. stop



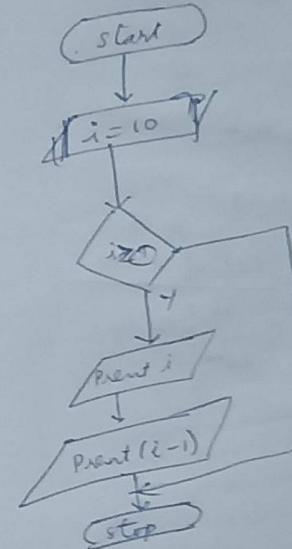
3) Factorial using recursion.

1. start
2. Read n , if $n <= 1$, then 2 else goto 4
3. if $n \geq 1$ goto 4
else goto 5
4. $\text{factorial}(n) = n * f(n-1)$
 $n--$
goto 3
5. Print factorial
6. stop



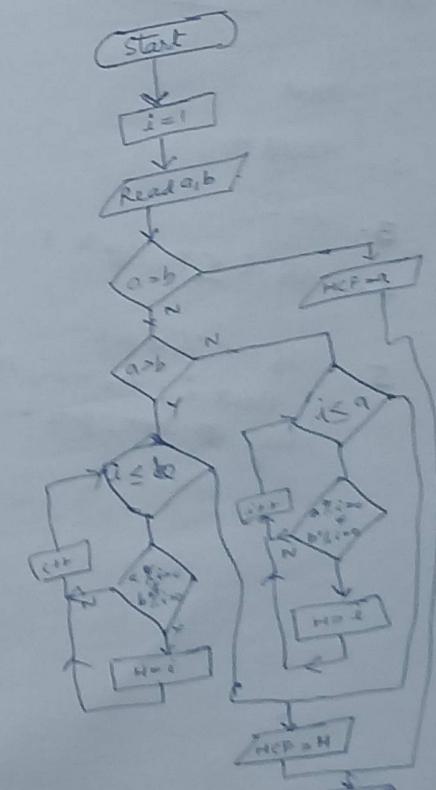
7) Print 1 to 10 without loop

1. start
2. Read $i = 10$
3. if $i > 0$ goto 4
4. Print i
~~Print ($i - 1$)~~
int Print ($i - 1$)
goes
5. stop



14) GCD / HCF of 2 numbers

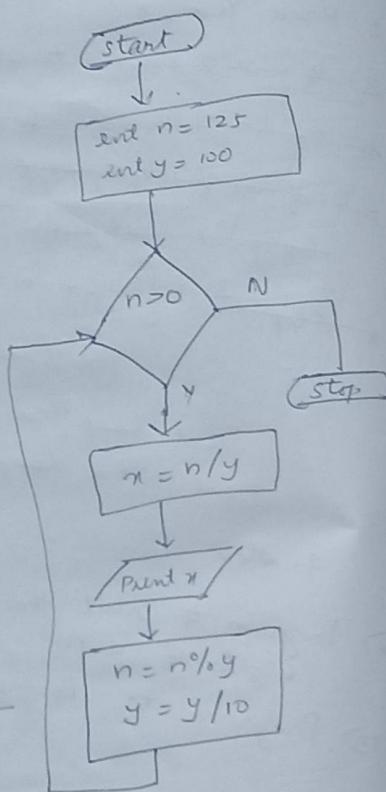
1. Start
2. Read $a, b, i=1$
3. Find smallest of a & b
let's say smallest = a
4. ~~if~~ $i \leq a$, if $i \leq a$, goto 5
else goto 6
5. if $a \% 2 = 0$ & $b \% i = 0$
then $H = i$
else goto 7
6. Print H
7. stop



Q7) Program to Print Digits of a Number

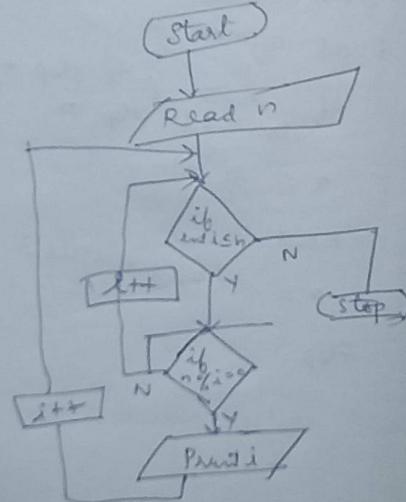
Algorithm

1. start
2. $n = 125$
 $y = 100$
3. if $n > 0$ goto step 4
else goto step 5
4. $x = \lfloor n/y \rfloor$
Print x
 $n = n \% y$
 $y = y/10$
Goto step 3
5. Exit



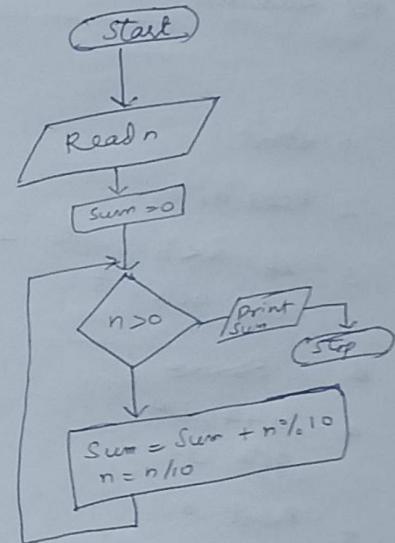
Q8) Program to find factors

1. start
2. Read n
3. Get $i=1$
4. if $i \leq n$ goto step 5
else goto step 6
5. if $n \% i = 0$
Print i
else increment i & goto 4
6. Step



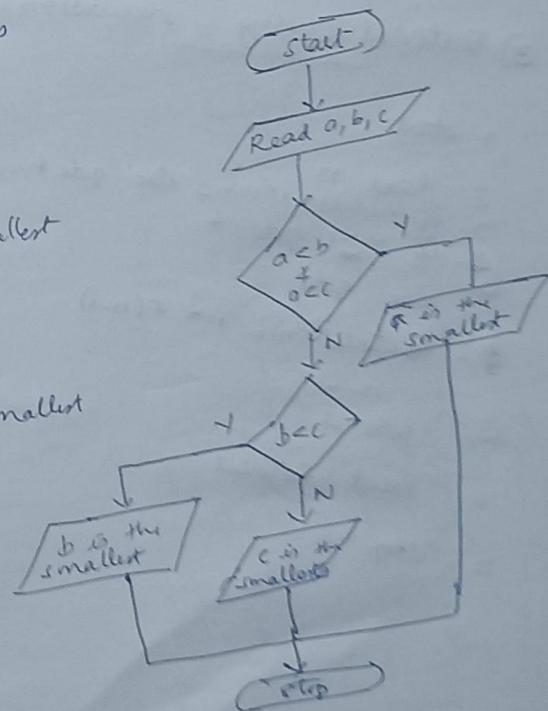
10) Sum of digit of a number

1. Start
2. $Sum = 0$, Read n
3. if $n > 0$, goto step 4.
else goto step 5
4. $x = n \% 10$ or $Sum = Sum + n \% 10$
 $Sum = Sum + x$
 $n = n/10$
Goto step 3
5. Print Sum
6. Stop



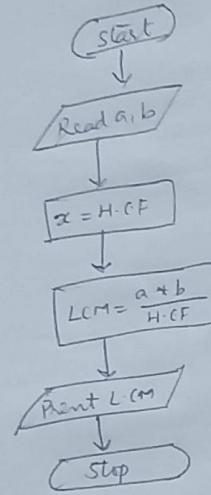
11) Smallest of 3 numbers

1. Start
2. Read a, b, c .
3. if $(a \leq b) \& (a \leq c)$
Print a is the smallest
else goto step 4
4. if $b \leq c$
Print b is the smallest
else print c is the smallest
5. End



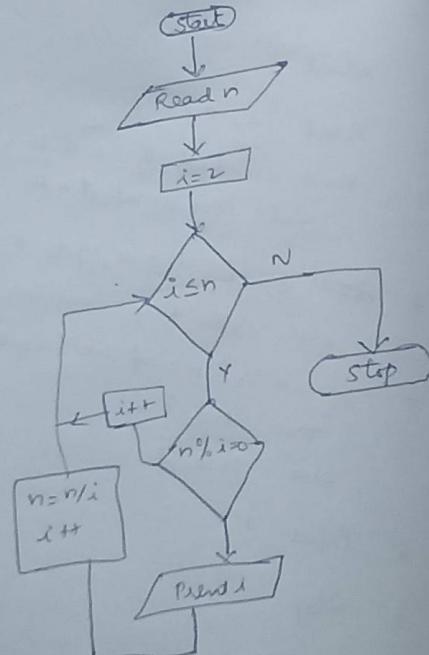
15) LCM of two numbers

1. Start
2. Read a,b
3. Find HCF
4. $LCM = \frac{a \times b}{HCF}$
5. Print LCM
6. Stop



16) All Prime factors of the Given number

1. Start
2. read n
3. $i=2$
4. if $i \leq n$ goto 5
5. if $n \% i = 0$
print i, $n = n/i$, $i++$, goto 4
else $i++$, goto 4

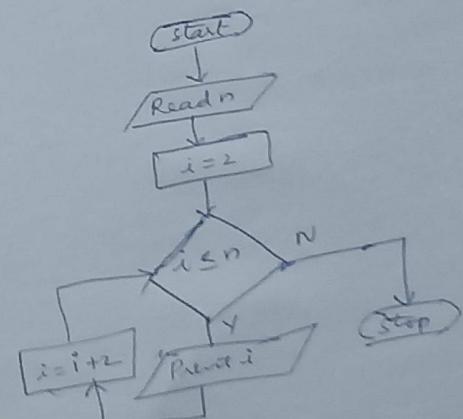
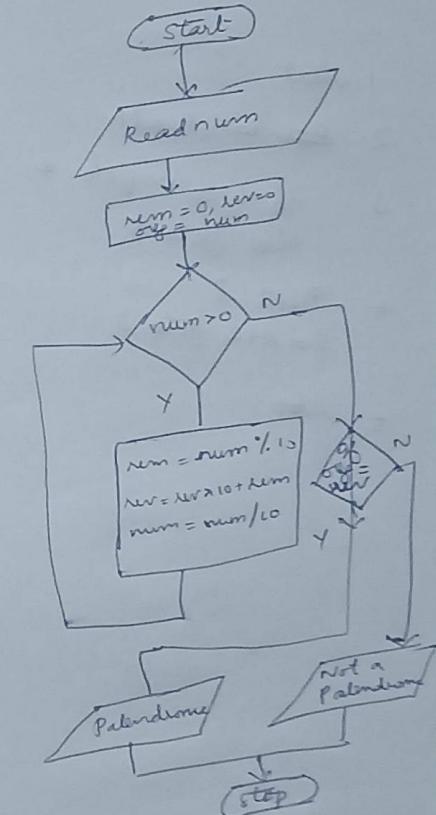


17) Check Palindrome or not

1. start
2. Read num, rem=0, rev=10
3. orig = num
4. if num > 0, goto 5
else goto 6
5. $rem = num \% 10$
 $rev = rev * 10 + rem$
 $num = num / 10$
goto 4
6. if orig = rev
print Palindrome
else print Not Palindrome
7. stop

18) Print Even series

1. Start
2. Read n
3. $i=2$
4. if $i \leq n$ goto 5
else goto 6
5. print i
 $i = i + 2$
goto 4
6. Stop



Q) Print odd numbers.

