

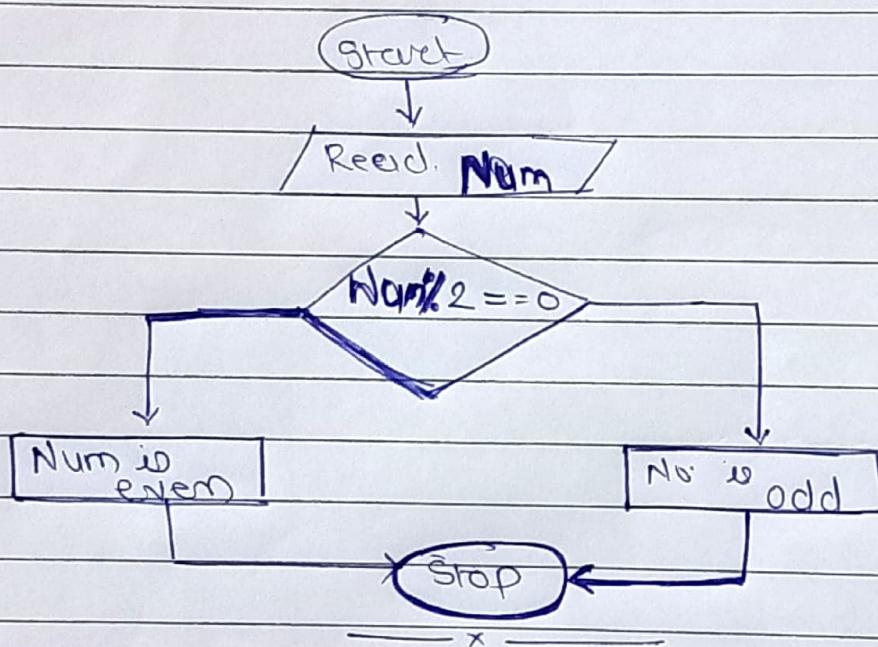
H.W.

Assignment-1

Q.1. check if the given No. is Even or Odd.

→

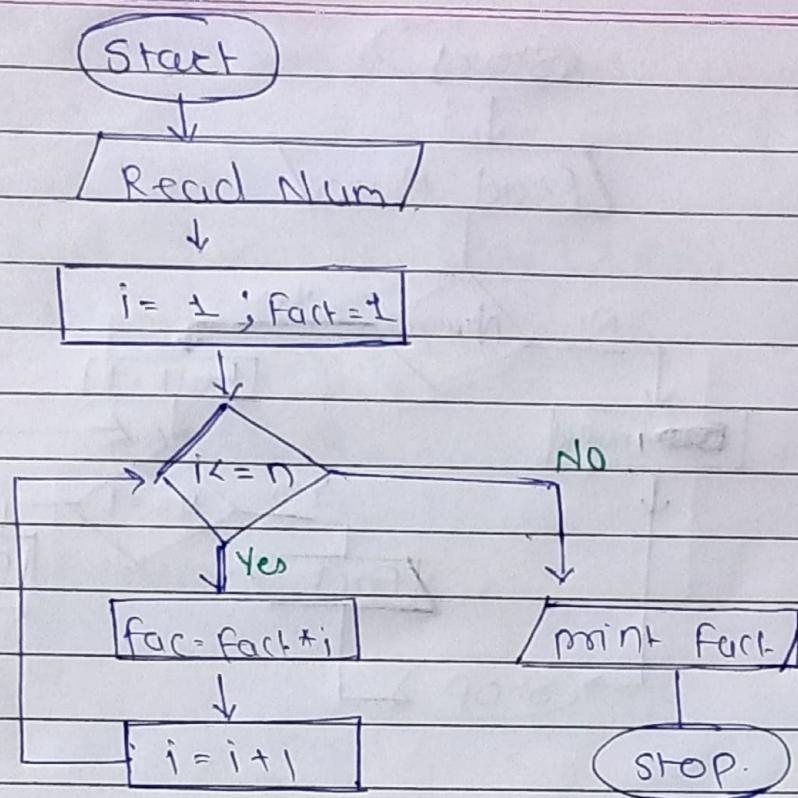
- ① Start
- ② Take a input from user & initialize.
- ③ check the no. is divisible by 2 or not.
- ④ if no. is divisible by 2 then entered no. is even
- ⑤ if no is not divisible by 2 then entered no is odd.
- ⑥ Display output
- ⑦ Stop



Q.2 Write a Java program to find factorial of given number.

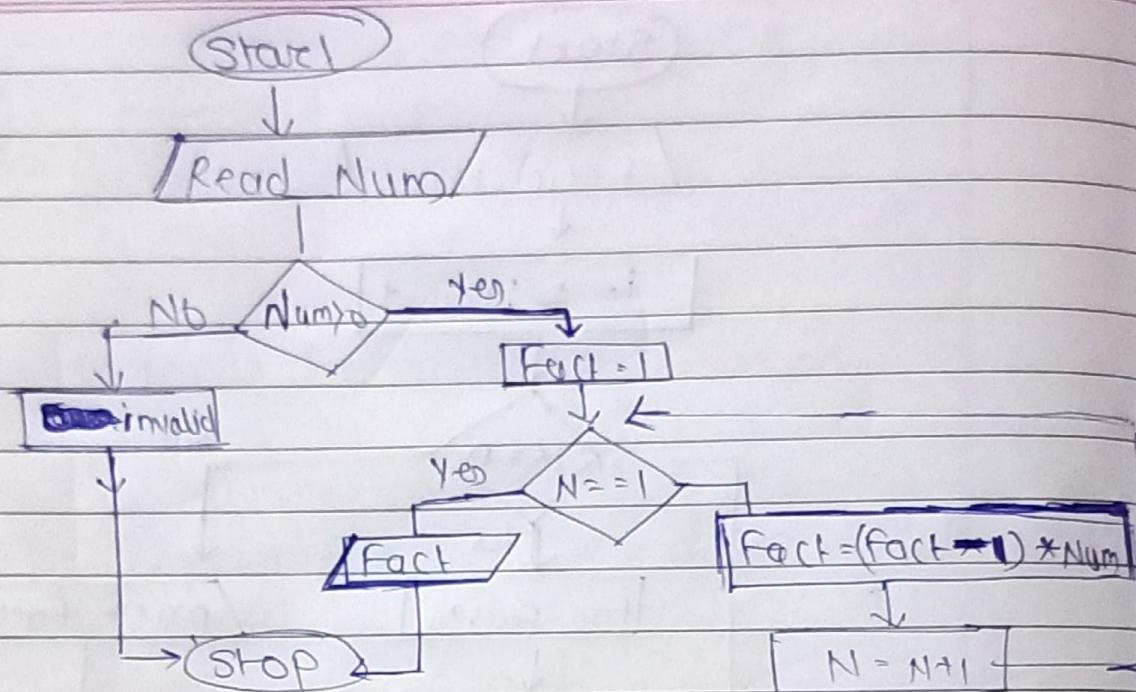
→

- ① Start
- ② Read Number
- ③ Initialize variable fact = 1. ~~i = 1;~~
- ④ while $i \leq \text{number}$
 fact = fact * i
- ⑤ print the fact $i = i + 1;$
- ⑥ Stop



3) Find Factorial using iteration :-

- ⇒
 - ① Start
 - ② Read number.
 - ③ Call factorial
 - ④ if num = 0 ; then exit
 - ⑤ if num = 1 then fact = 1.
 - ⑥ Else
 - fact = n * Fact(n-1)
 - ⑦ Print fact
 - ⑧ Stop.



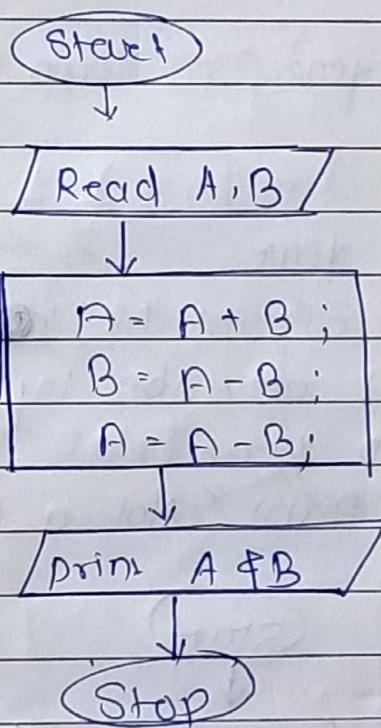
(4) Swap two number without using third variable approach.

- ① Start
- ② Read two Number ($A \neq B$)
- ③ Swap using

$$A = A + B;$$

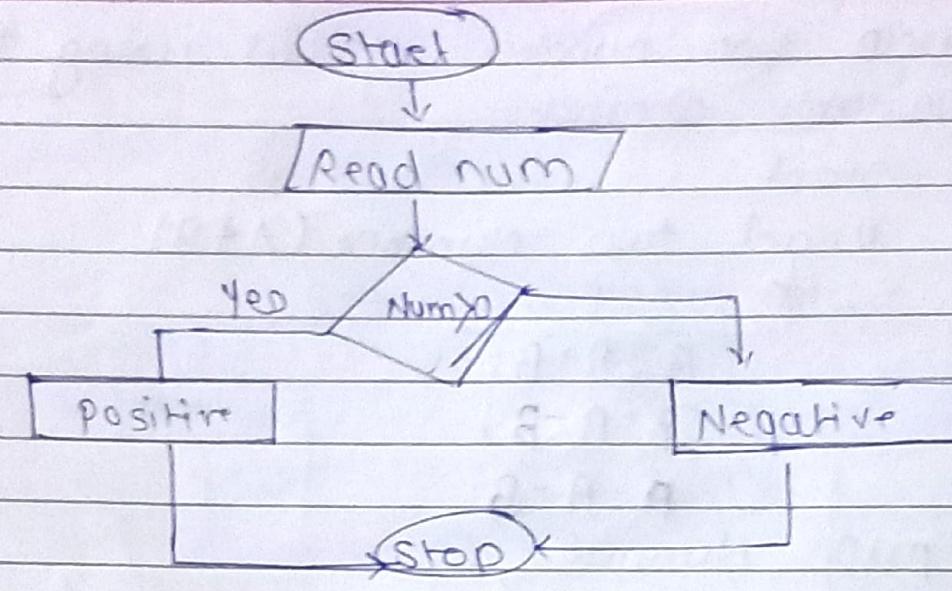
$$B = A - B;$$

$$A = A - B;$$
- ④ print Number
- ⑤ Stop



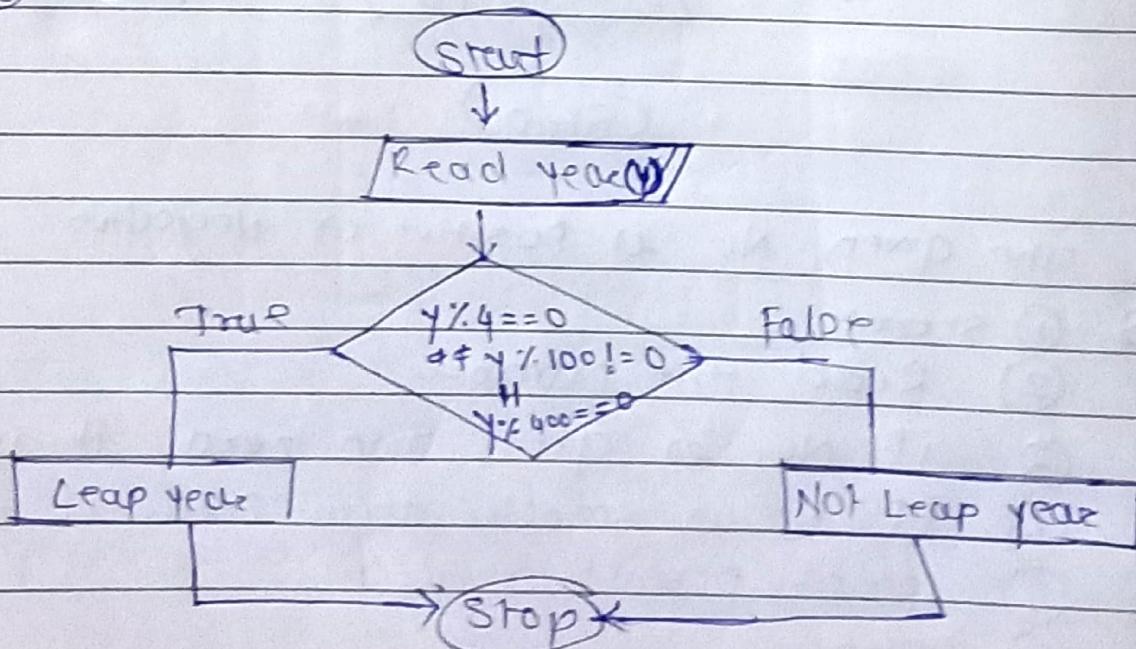
(5) The given No. is Positive or Negative

- ① Start
- ② Read the Number
- ③ if No. is greater than zero, it is positive
- ④ If No is smaller than zero it is Neg.
- ⑤ print positive or Neg
- ⑥ Stop



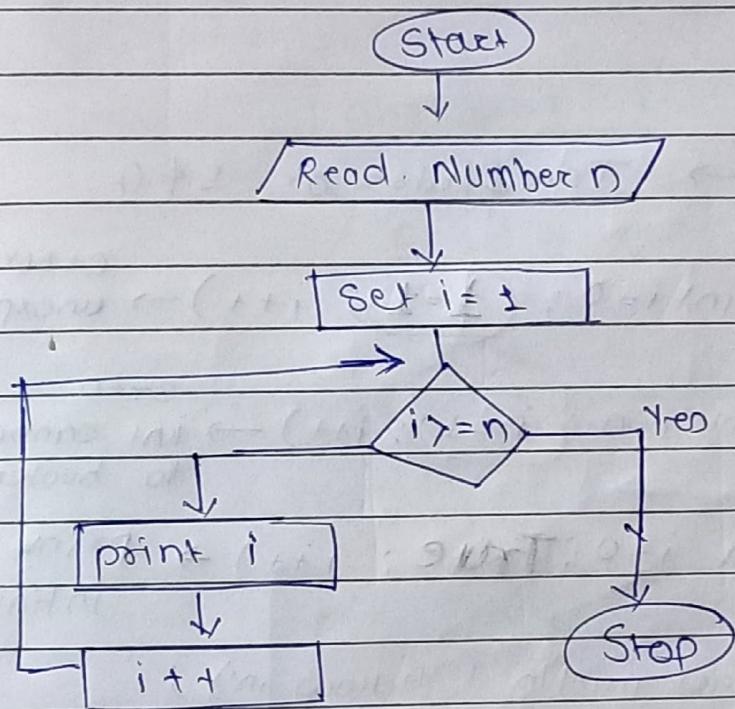
- ⑥ ~~No~~ Find the year is leap year or not.

- ① Start
- ② Read the year.
- ③ if year is divisible by 4 ~~but not 100~~, but NOT 100
check it divisible by 400
- ④ print leap year
- ⑤ otherwise "print" Not a leap year"
- ⑥ Stop.



Q) Print No. 1 to 10 without using loop.

- ① Start.
- ② Read $n=10$
- ③ Set $i = 1$.
- ④ If $i > n$;
 $i++$.
- ⑤ print 1 to 10
- ⑥ Stop

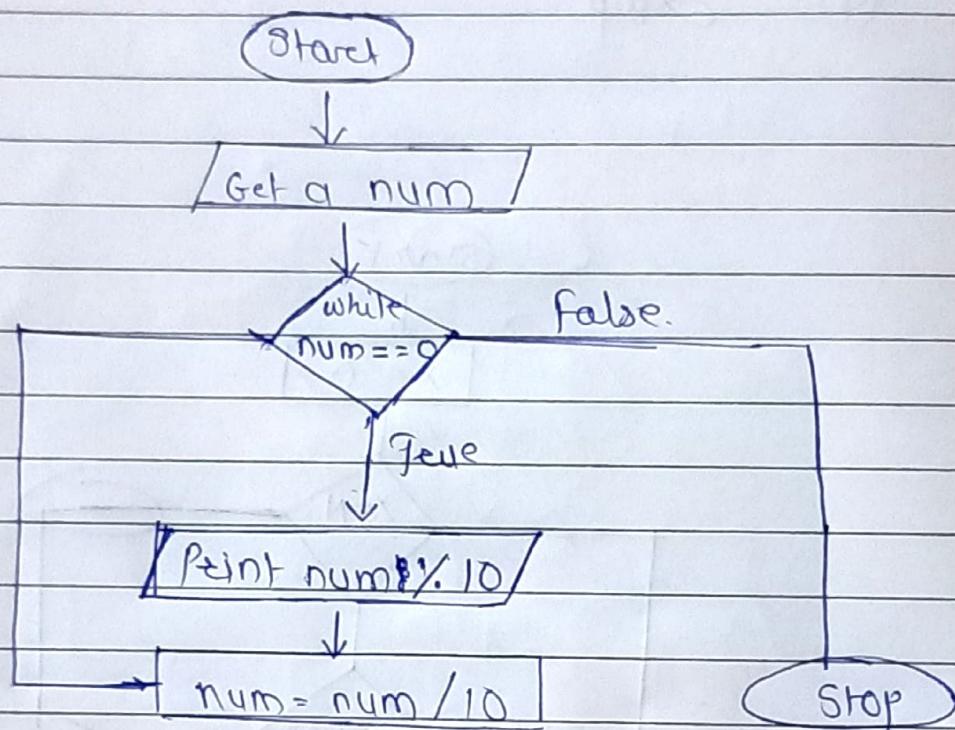


Q)

~~Ques~~ ~~Ques~~ ~~Ques~~ ~~Ques~~ ~~Ques~~

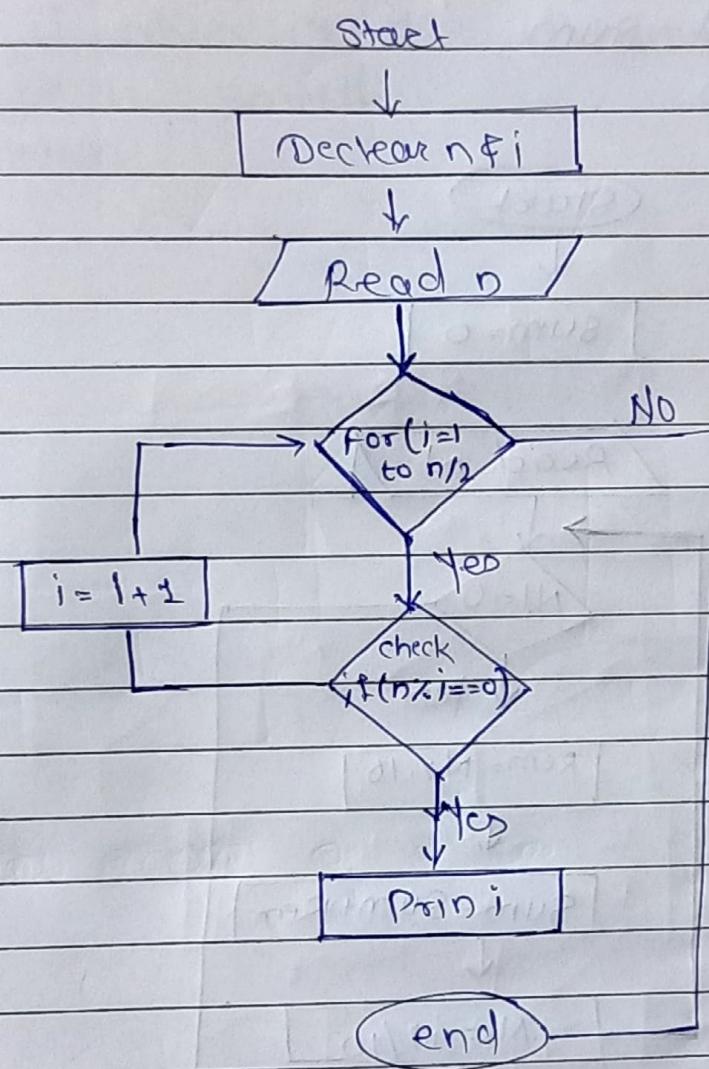
(8) Point a digit of Number

- ① Start
- ② Get a number
- ③ Print the value of Number%10
- ④ Number = number / 10
- ⑤ Repeat step 3 & 4 until number is not equal to zero
- ⑥ Stop.



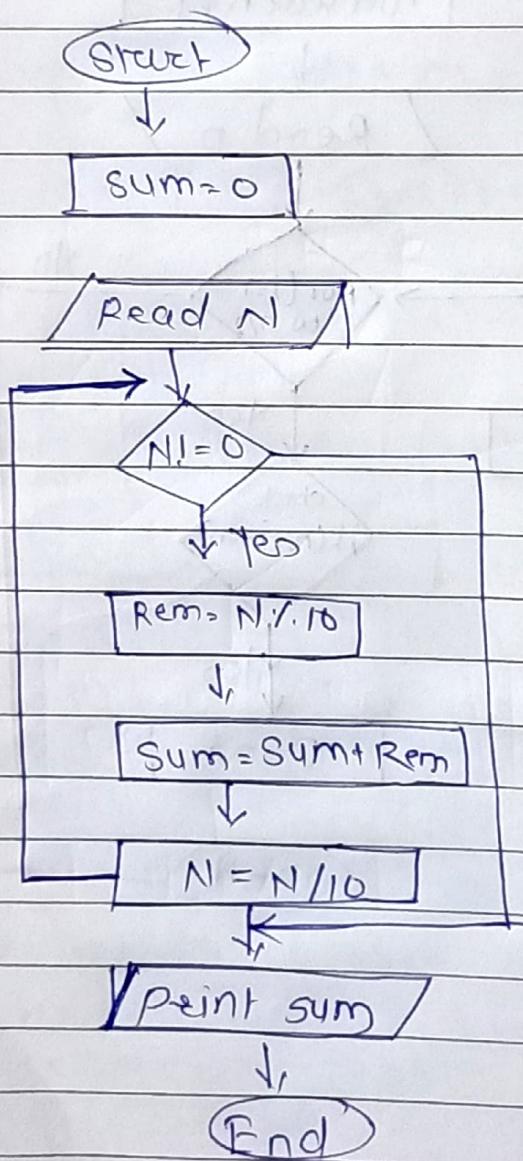
Q To print the all factors of the given number.

- ① start
- ② read i, n.
- ③ for ($i=1$ to $n/2$) increment of i
- ④ check if $(n \div i = 0)$
- ⑤ print the number
- ⑥ stop.



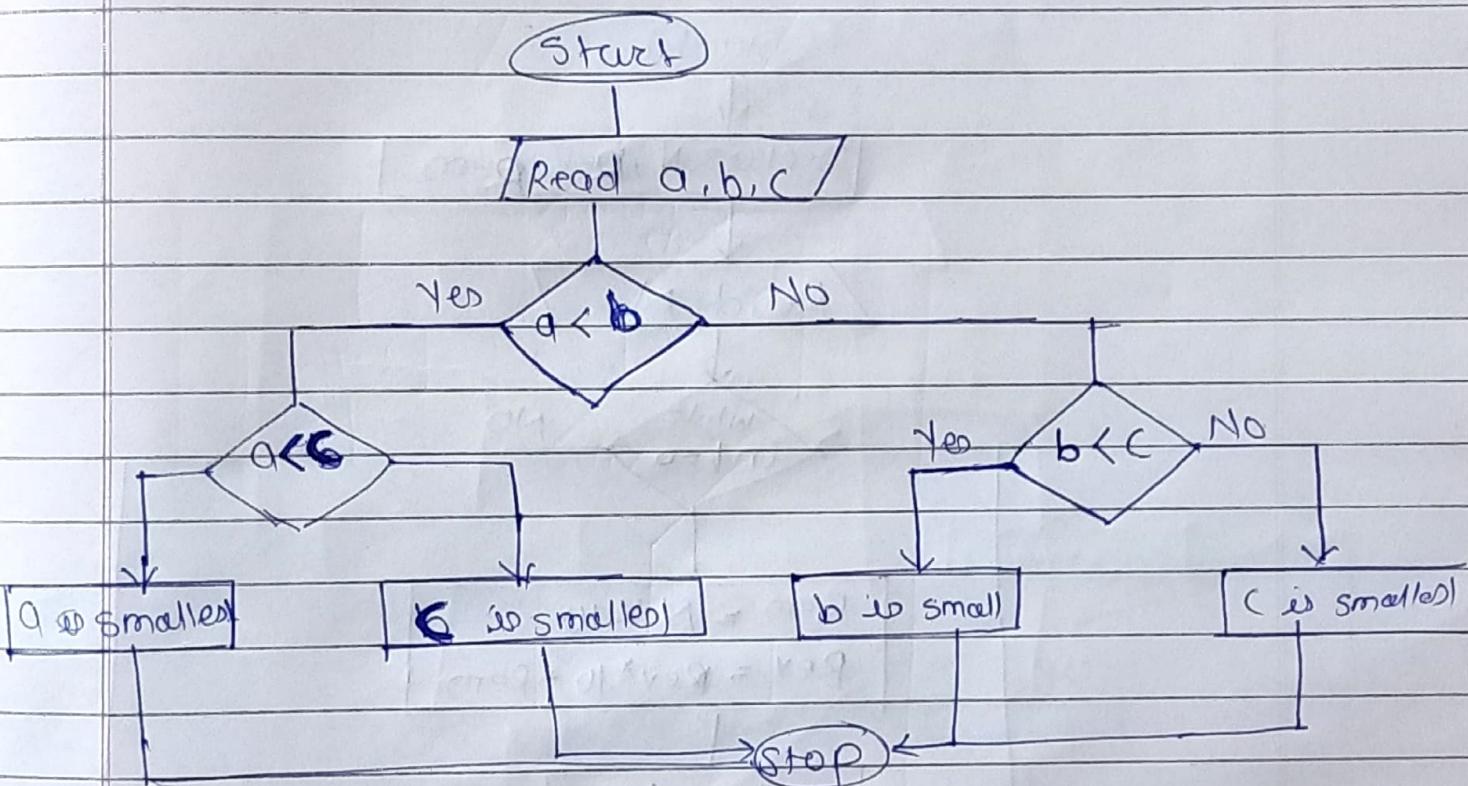
Q10) Find a sum of the digits of a given number

- ① Start
- ② Get the ~~no~~ number
- ③ Initialize sum to zero.
- ④ If no is not zero then get the remainder by $\text{inputNum} \bmod 10$.
- ⑤ Add remainder to 10
- ⑥ Divide no. by 10
- ⑦ print sum
- ⑧ Stop.



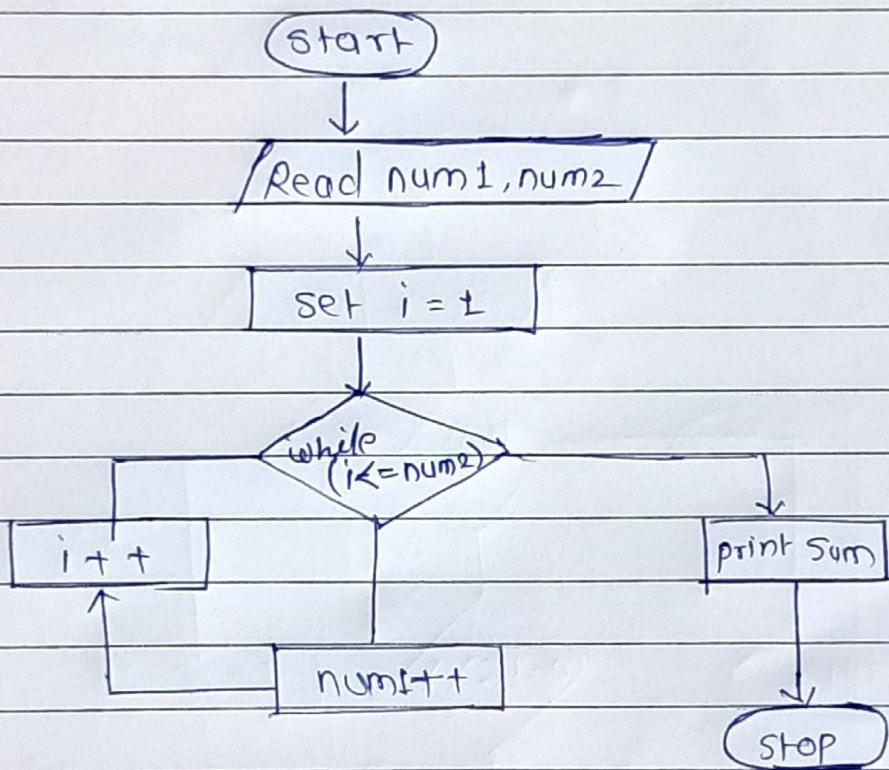
(11) Find the smallest of 3 Number (a,b,c)

- ① Start
- ② Take 3 number a,b,c.
- ③ check if a is less than b and a is less than c
- ④ if above condⁿ is true, a is smallest and go to step 7, else goto step 5.
- ⑤ check if b is less than c.
- ⑥ if above condⁿ is true, b is smallest, e is smallest
- ⑦ Stop.



(12) Addition without arithmetic Operator.

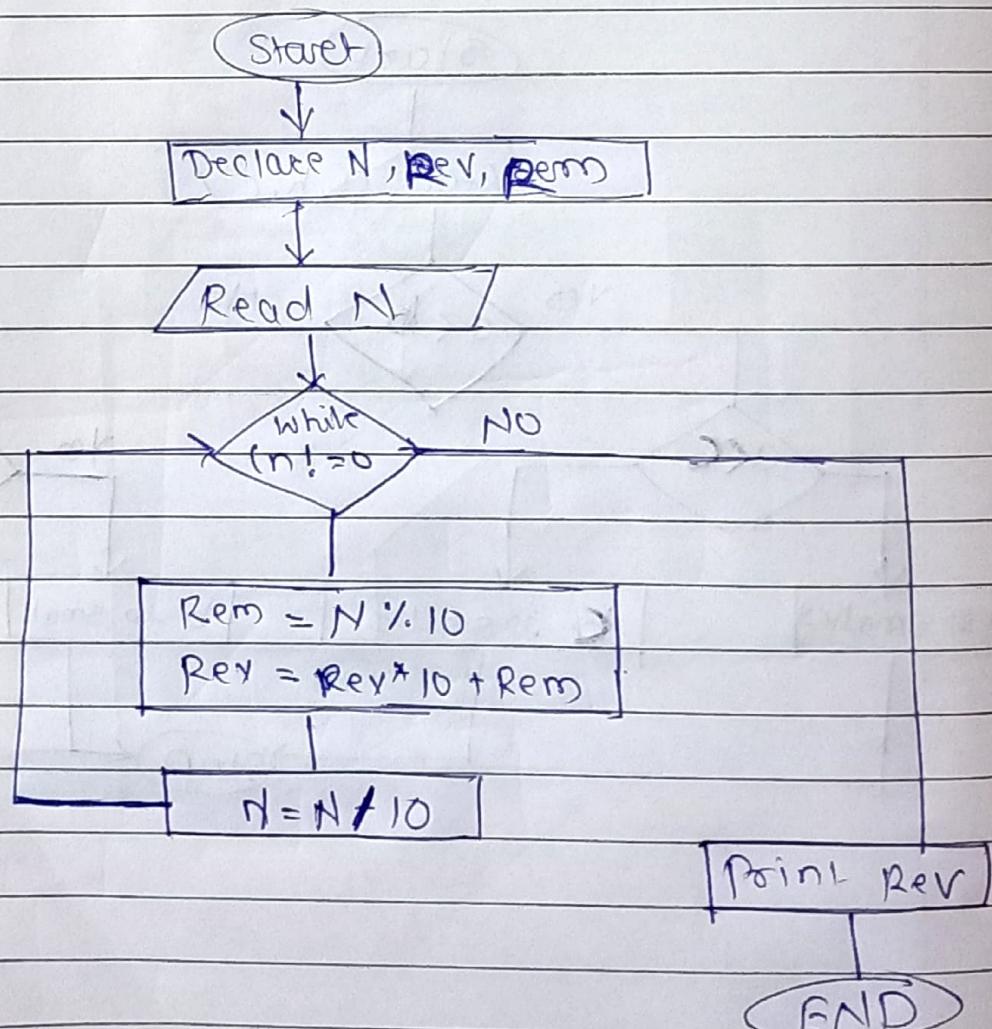
- ① Start
- ② Get two number.
- ③ set $i = 1$
- ④ ~~while~~ $i \leq num_2$
 $i++ \neq num++$
- ⑤ print sum
- ⑥ Stop



(12)

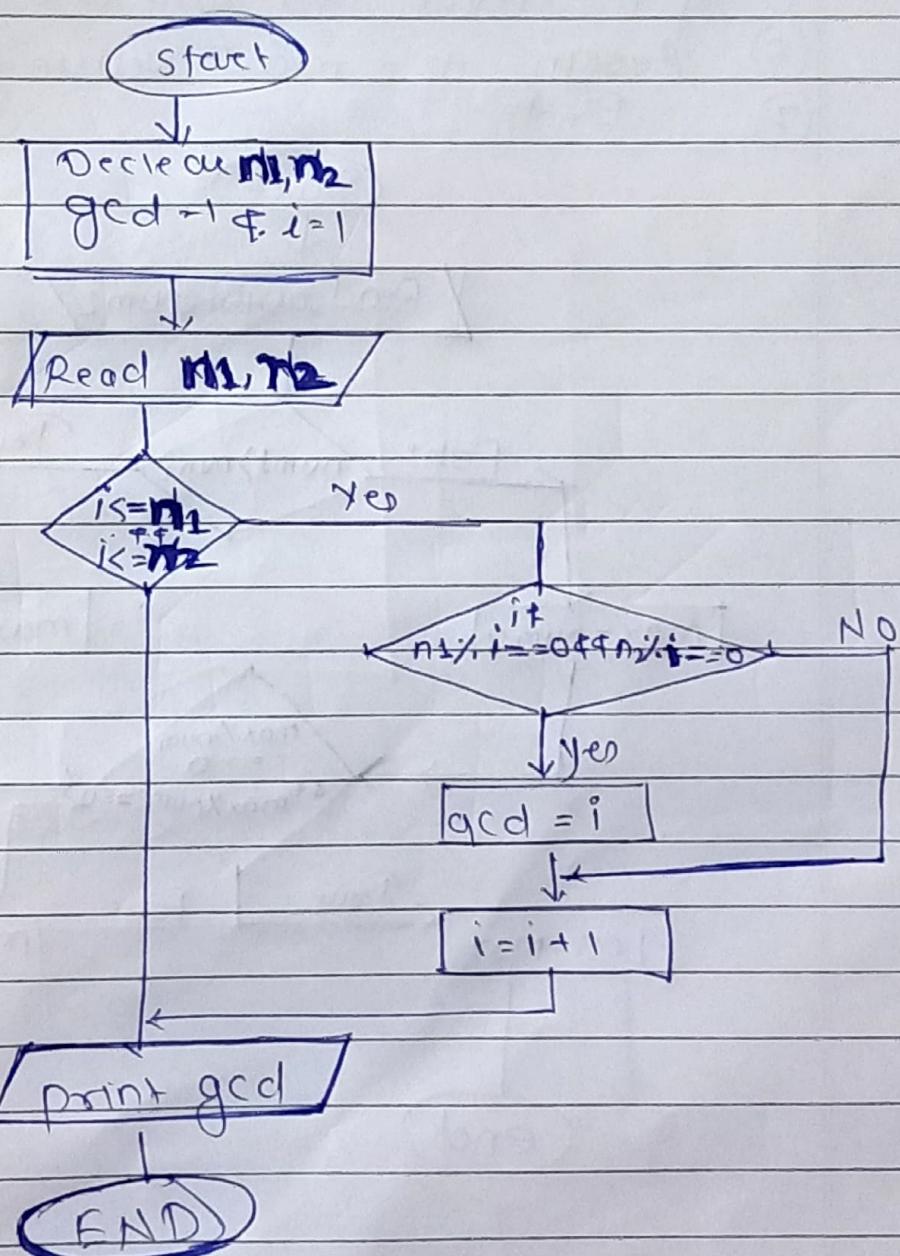
To print Reverse a given Number

- ① Start
- ② Declare a variable n, rev & remainder
- ③ Read a number n;
- ④ while n not equal to zero
 - ⑤ remainder = $n \% 10$;
 - ⑥ ~~rev~~ = rev * 10 + remainder
 - ⑦ $n = n / 10$
- ⑧ Print reverse.
- ⑨ Stop



(14) Find the GCD of two Number

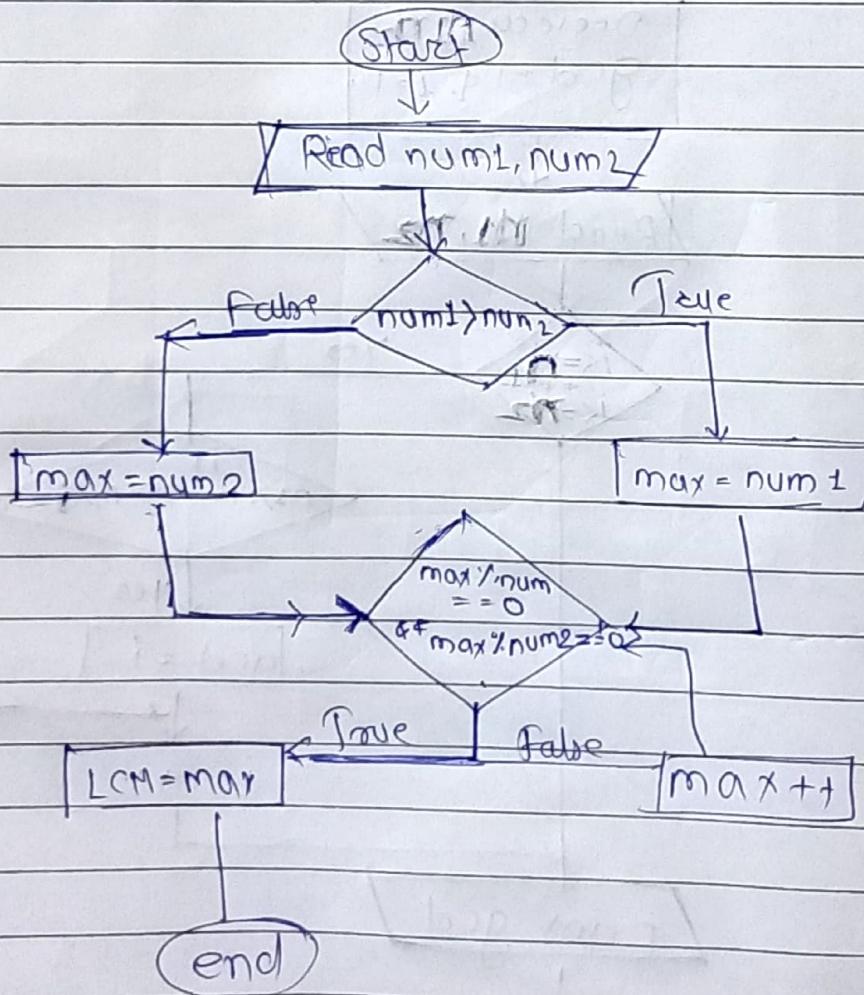
- ① start
- ② declare variable $n_1, n_2, gcd=1, i=1$
- ③ input n_1, n_2
- ④ Repeat until $i = n_1 \& i = n_2$
- ⑤ if $n_1 \% i == 0 \& n_2 \% i == 0$;
- ⑥ $gcd = i$
- ⑦ print gcd
- ⑧ stop



(15)

LCM of two Number

- ① Start
- ② Take the two number as input and stored them
- ③ Compare the two number to find the largest and set it as the maximum.
- ④ Logically And the outputs of the $\text{max}^m \bmod \text{first Number}$ and $\text{max}^m \bmod \text{second No.}$
- ⑤ if the result is False , increment the value of the max^m by one and go to step 4.
- ⑥ Assign the max^m value as the LCM
- ⑦ End.



(17) Palindrom or Not

(17)

① start

② $s=0, a=n$ ③ while ($n > 0$)

$$r = n \% 10$$

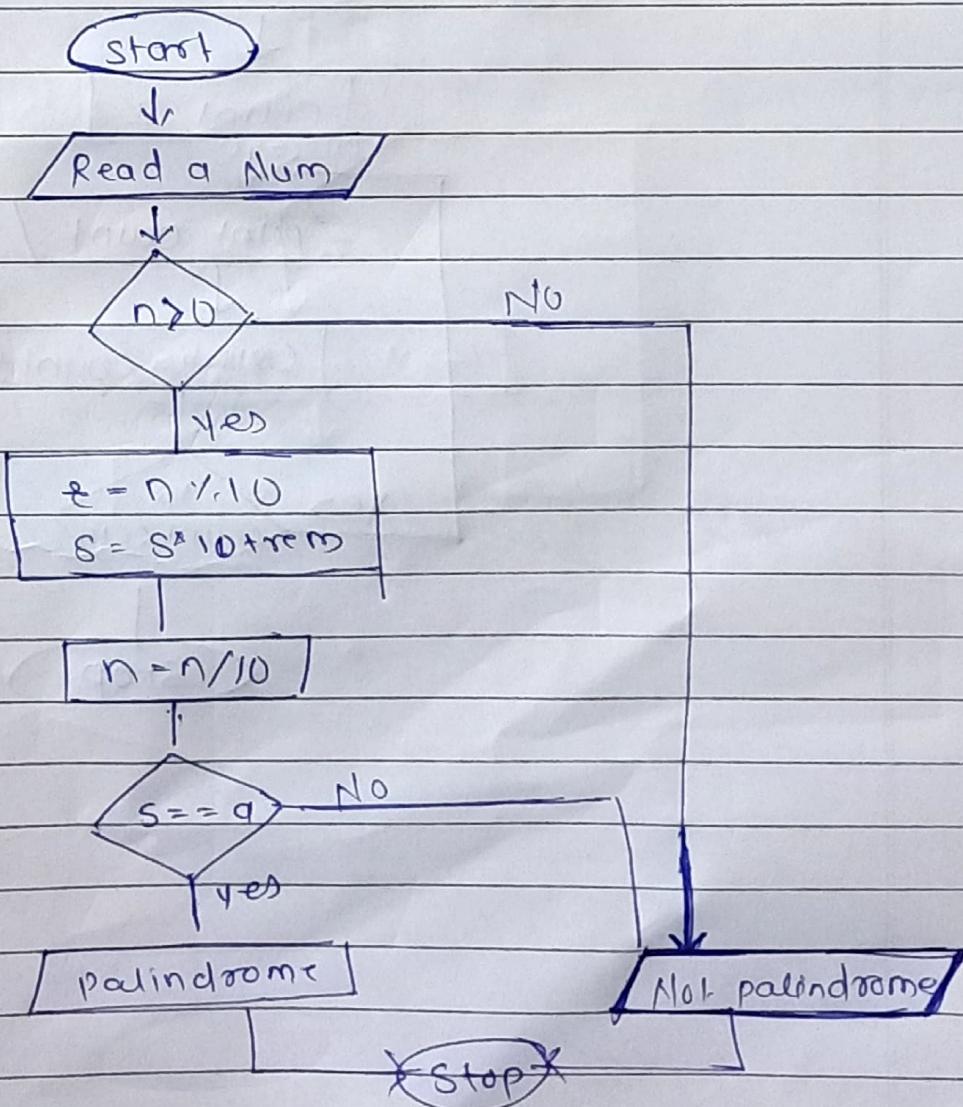
$$s = s * 10 + r \text{ rem}$$

$$n = n / 10$$

④ if ($s == a$)

⑤ print palindrom or not.

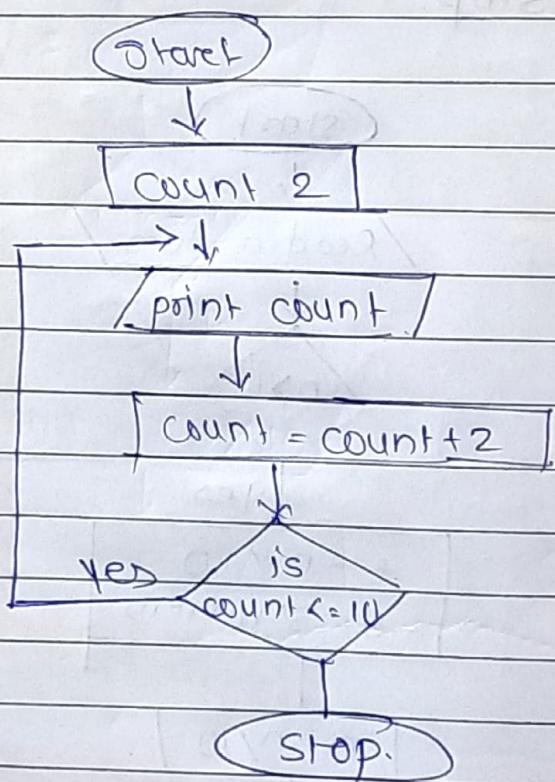
⑥ stop.



(19)

Even No. series 2, 4, 6

- ① start
- ② take input and ~~store~~ ~~to~~ ~~ask~~ NO.
- ③ take count = 2 & print
- ④ count = count + 2
- ⑤ is count ≤ 10
- ⑥ if yes then repeat step 3
- ⑦ if NO then exit
- ⑧ print
- ⑨ exit



(2D)

Odd series 1, 3, 5, f...

- ① Start
- ② Declare x is an integer variable
- ③ Set x = 0
- ④ Determine the value of n in integer
- ⑤ while ($x \leq n$) repeat S-7
- ⑥ if ($x \% 2 != 0$)
- ⑦ then print x
- ⑧ $x = x + 1$
- ⑨ Stop

